April 27, 1990

FIELD DATA SUBMITTAL
PART 2 REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

AUGUST 1989 THROUGH APRIL 1990
MONITOR AND TEST WELL INSTALLATION

DRAFT

HARGIS+ASSOCIATES, INC.

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April 27, 1990

VIA FEDERAL EXPRESS

Ms. Janet Bell
McDONNELL DOUGLAS CORPORATION
Internal Mail Code 211-40
10833 Valleyview
Cypress, CA 90630

Re: Field Data Submittal, Part 2 Remedial Investigation Work, Phase 2B, Montrose Site, Torrance, California, August 1989 through April 1990, Monitor and Test Well Installation

Dear Ms. Bell:

Enclosed please find, in its entirety, the above-referenced document. This document is required per the terms of the EPA-Montrose Consent Order and provides field data obtained during well installation activities conducted from August 1989 through April 1990. The document includes lithologic logs, geophysical logs, and as-built well construction data. Per the verbal agreement between Mr. Dan Summers of McDonnell Douglas Corporation (MDC), and Mr. Ron Stuff of Latham & Watkins, Hargis + Associates, Inc. (H+A) will provide MDC with unabridged data submittals. In return, MDC shall supply to H+A, on behalf of Montrose Chemical Corporation, the groundwater and soil assessment report for the C-6 facility.

Two additional data submittals are forthcoming. Field data and analytical data pertaining to April groundwater sampling activities are required to be submitted to EPA in late May and mid-June, respectively.

Per the terms of the McDonnell Douglas-Montrose access agreement, Hargis + Associates, Inc. will use its best efforts to provide the above-referenced data submittals to McDonnell Douglas seven days prior to delivery to EPA.

Other Offices:
Tucson, AZ
Mesa, AZ
Manhattan Beach, CA
Burbank, CA

Please contact me if you have any questions regarding Montrose data submittals.

Sincerely,

HARGIS + ASSOCIATES, INC.

Matthew P. Wiedlin

Matthew P. Wiedlin
Project Hydrogeologist

MPW/djr

Enclosure

bell03.218.1

FIELD DATA SUBMITTAL
PART 2 REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

AUGUST 1989 THROUGH APRIL 1990
MONITOR AND TEST WELL INSTALLATION

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FIELD DATA SUBMITTAL
PART 2 REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

AUGUST 1989 THROUGH APRIL 1990
MONITOR AND TEST WELL INSTALLATION

1.0 INTRODUCTION

This field data submittal has been prepared on behalf of Montrose Chemical Corporation (Montrose) as part of the Remedial Investigation (RI). This submittal is being provided in accordance with the Administrative Order on Consent, U.S. Environmental Protection Agency (EPA) Docket No. 85-04.

This field data submittal contains data obtained during monitor well installation conducted during the period August 1989 through April 1990 (Appendices A through C). One additional field data submittal and one raw analytical data submittal will be prepared in conjunction with this submittal as the data become available. The additional field data submittal will contain field data obtained during the initial groundwater sampling for monitor wells MW-16 through MW-22 conducted in early April 1990 and field data obtained during the annual groundwater sampling round conducted in late April 1990. The raw analytical data submittal will contain laboratory data for all groundwater samples collected during April 1990.

1.1 EXPLANATION OF LOGS

Lithologic descriptions were compiled based on soil samples collected from soil coring devices or mud rotary cuttings. Sample recovery was recorded as the ratio of soil recovered to the total interval cored. Color was described using the Munsell Soil Color Chart. Grain size was estimated

using ASTM standards D422-63 and D643-78 (American Geological Institute, 1982).

An HNU Model 101 photo ionization-type analyzer was used to make field measurements of organic vapors in soil samples and to monitor background and work space air quality. HNU readings were taken according to the procedures outlined in the EPA-approved May 20, 1988, Quality Assurance Project Plan (QAPP) (Hargis + Associates, Inc., 1988). The HNU readings in equivalent parts per million (ppm) of methane are presented on the lithologic logs at the depth interval sampled (Appendix A). The background HNU readings are subtracted from HNU soil measurements when the soil measurements are less than 50 ppm.

The lithologic logs for exploratory borings EB-8 through EB-13 and monitor wells G-12 and LW-3 are based on compilations of drill cuttings, soil samples and borehole geophysics data. The remaining lithologic logs are based solely on descriptions of mud rotary cuttings and soil samples. Monitor well locations have been indicated (Figure 1).

1.2 DESCRIPTION OF DRILLING

An Ingersoll-Rand TH 100 mud rotary drill rig was used to drill exploratory borings EB-8 and EB-11, Lynwood aquifer monitor wells LW-1 and LW-2, and Upper Bellflower Test (UBT) wells UBT-1, UBT-2 and UBT-3. The drill rig was equipped with a Christianson wireline core barrel. Soil samples for lithologic descriptions of exploratory borings and monitor wells were collected from selected cored intervals and from mud circulated cuttings. Lithology for the UBT wells was described from continuous core samples collected from land surface to a total depth of approximately 100 feet below land surface (bls).

Exploratory borings EB-9, EB-10, EB-12 and EB-13, Bellflower sand monitor wells BF-10 through BF-17, Gage aquifer monitor wells G-8, G-9, G-11,

G-12, G-13, and Lynwood aquifer monitor well LW-3 were drilled with a Gardner-Denver 100 mud rotary drill rig. Samples for lithologic description were collected from selected intervals using a pitcher core barrel and from mud rotary cuttings in a 5-1/4-inch diameter borehole.

Natural gamma, spontaneous potential, 16/64-inch normal resistivity, 6-foot lateral resistivity and caliper logs were run in each exploratory boring except borings EB-10 and EB-12. These tools were also run in Gage monitor well G-12 and Lynwood aquifer monitor well LW-3 to conductor casing depth. Exploratory boring EB-12 was not logged for natural gamma or caliper due to equipment malfunction. The UBT wells were also caliper logged for grout volume calculation (Appendix B). Exploratory borings were abandoned by pressure cementing from the bottom of the hole to land surface with neat cement.

A CME-75 hollow-stem auger rig equipped with nominal 6-inch outer diameter (OD) and nominal 10-inch OD augers was used to construct Upper Bellflower aquitard monitor wells MW-16 through MW-26. Lithologic descriptions were made from continuous core collected as the 6-inch OD augers were advanced. Nominal 10-inch OD auger was used to ream open the hole to accommodate the 4-inch well casing.

Fifteen feet of 4-inch nominal 316L stainless steel wire wrap well screen with a slot size of 0.020 or 0.010 inches was installed in each Upper Bellflower aquitard well. Four-inch nominal schedule 40 PVC well casing was installed above the screen in each well. Monterey No. 1C sand was used to filter pack the screened interval. The filter pack was installed between 1 and 4 feet above the top of the screened interval. Baroid holeplug bentonite or Volclay 1/4-inch pellets were installed and hydrated to provide a bentonite seal. A nine-sack sand cement slurry was used to backfill the well annulus from the grout filter to land surface. All wells were equipped with locking lids and Christy vaults.

Drilling operations for the Bellflower sand and Gage aquifer monitor wells typically lasted two to four days. The first day generally entailed drilling to conductor casing depth. The second day generally entailed welding conductor casing and pressure cementing the conductor casing/borehole annular space with neat cement. The third day generally entailed drilling out the cement shoe, mixing fresh mud, drilling to the total depth of the well, and installing the well casing. The well casing/conductor casing annular space was grouted with Volclay grout.

Well construction methods differed slightly between monitor wells depending on which drill rig was used. In the monitor wells constructed using the Ingersoll-Rand drill rig, 10-inch ID conductor casing was installed and the well casing was installed in a 9-7/8-inch borehole. In the monitor wells constructed using the Gardner-Denver 100 drill rig, 8-1/4-inch ID steel conductor was installed and well casing was installed in a 12-inch borehole using an underreamer bit (Appendix C).

Bellflower sand monitor wells BF-10 through BF-17 were installed with 10 to 20 feet of 4-inch nominal 316L stainless steel wire wrap well screen. Slot size and filter pack were either 0.045 inches and medium aquarium Monterey sand or 0.020 inches and No. 1C, 2x12 or medium aquarium Monterey sand depending upon lithologic conditions encountered at each individual well. Ten feet of 4-inch nominal 316L stainless steel blank was installed above the screen in each Bellflower sand well. Four and one-half inch schedule 40 PVC casing was installed from the blank stainless steel casing to near land surface. Bentonite pellets or Baroid Holeplug bentonite chips were installed above the filter pack. The casing/conductor annulus was sealed with a Volclay slurry tremied from the top of the bentonite seal to near land surface.

Gage aquifer monitor wells G-8, G-9, G-11, G-12 and G-13 were installed with 40 feet of 4-inch nominal 316L stainless steel wire wrap well screen. Lynwood aquifer monitor wells LW-1, LW-2 and LW-3 were constructed with 20 feet of 4-inch nominal 316L stainless steel wire wrap well screen. Gage

and Lynwood aquifer monitor wells except well G-12 were constructed using 0.020-inch well screen and No. 1C Monterey sand filter pack. Monitor well G-12 was constructed with medium aquarium Monterey sand for filter pack. Ten feet of 4-inch nominal 316L stainless steel blank casing was installed above the screen in each well. Four and one-half inch nominal schedule 40 PVC casing was installed above the blank stainless steel casing to near land surface. Sand filter pack was gravity emplaced in the annulus of the borehole to at least 2 feet above the well screen. Bentonite pellets were installed above the filter pack. Volclay grout was tremied from the bentonite seal to near land surface in order to seal the well casing/ conductor casing annulus.

1.2.1 Divergences From Quality Assurance Project Plan

The following paragraphs identify technical and well construction procedures which deviated from the procedures described in the QAPP (Hargis + Associates, Inc., 1988).

A 16-inch boring was drilled for Lynwood aquifer monitor wells LW-1 and LW-2 to allow adequate annular space for the 10-inch conductor casing. In construction of all Bellflower and Gage monitor wells and the third Lynwood aquifer monitor well, an underreamer bit was used to drill a boring below the conductor casing that was wider in diameter than the conductor casing. This procedure reduced the volume of cuttings and drilling fluid generated at the site.

HNU readings of 30 to 50 ppm in the work area were measured while drilling Upper Bellflower aquitard monitor well MW-20. Monitor well MW-20 was installed with 2-inch nominal PVC well casing and 2-inch nominal stainless steel screen instead of 4-inch nominal well casing and screen. The smaller diameter casing was selected in order to build the well inside the 6-inch hollow stem auger. The 10-inch auger was not used to ream out the 6-inch auger boring in order to minimize the time the field crew spent

in level B protection. Additionally, MW-20 development was postponed at least until the compound detected by the HNU was identified. Consequently, the first groundwater sample was collected without well development.

Bellflower sand monitor wells were originally designed to be constructed with 10 feet of stainless steel wire wrap screen with 0.045-inch slots, based on sieve analysis of the aquifer material on-property. Where lithology varied off-site wells were installed with 20 feet of screen and/or 0.020-inch screen slot size.

1.2.2 Problems Encountered During Drilling

During the construction of the screened interval in Lynwood aquifer monitor well LW-1, circulation was lost immediately after drilling through the Haliburton cement shoe. Approximately 1,500 gallons of fresh drilling fluids were lost to the formation after encountering gravel and coarse sand. Circulation was established by increasing the mud viscosity. Exploratory borings at other locations encountered fine sand or fine to medium sand at this stratigraphic interval. After well completion, 5,580 gallons were purged from the well during development. An additional 380 gallons or three casing volumes were purged during the first sampling round.

1.3 WELL DEVELOPMENT PROCEDURES

Development of Phase 2B monitor wells included preliminary development of six monitor wells constructed in the Bellflower sand, Gage, and Lynwood aquifers and final development of all the monitor wells (Appendix C). Preliminary development was conducted shortly after the monitor wells were constructed. The objective of the preliminary development was to remove water or drilling fluid from the well introduced during construction. The monitor wells were pumped with an electric submersible pump. Approximately 550 to 1,050 gallons of water were removed from each Bellflower sand and

Gage aquifer monitor well during preliminary development. Approximately 2,175 gallons were removed from Lynwood monitor well LW-3 during preliminary development.

The objective of the final development was to remove fine-grained particles from the filter pack and the formation immediately adjacent to the well. During final development, Phase 2B wells were bailed, swabbed, and pumped if well capacity was sufficient. Each well was bailed using a suction bailer to remove sediment from the well. After bailing, the screened interval was swabbed. This procedure was repeated as necessary.

After bailing and swabbing, wells with sufficient capacity were pumped until the water was clear. Upper Bellflower aquitard monitor wells MW-23, MW-24 and MW-26 were not able to sustain pumping. In all Phase 2B monitor wells the volume of water removed during development was equivalent to or greater than the volume of water used to stabilize the boring during well construction. The static water level, discharge rate and pumping duration were recorded (Appendix C).

1.4 PUMP SETTING PROCEDURES

In Phase 2B, monitor wells constructed in the Bellflower sand, Gage and Lynwood aquifers were fitted with dedicated QED Model T1200 bladder pumps for sampling, set below Grundfos electric submersible pumps for purging (Appendix C). Each bladder pump was installed at a depth where its intake was within the blank stainless steel casing. The electric submersible pumps installed in Phase 2B were nominal 7 gallons per minute (gpm), 10 gpm, or 16 gpm, depending on the depth at which the pumps were set.

The Upper Bellflower aquitard (MW) monitor wells constructed during Phase 2B were each fitted with a dedicated QED T1200 bladder pump for purging and sampling. An additional QED HR4200 Purge Master gas drive pump is being tested for purging in some of the aquitard monitor wells. The

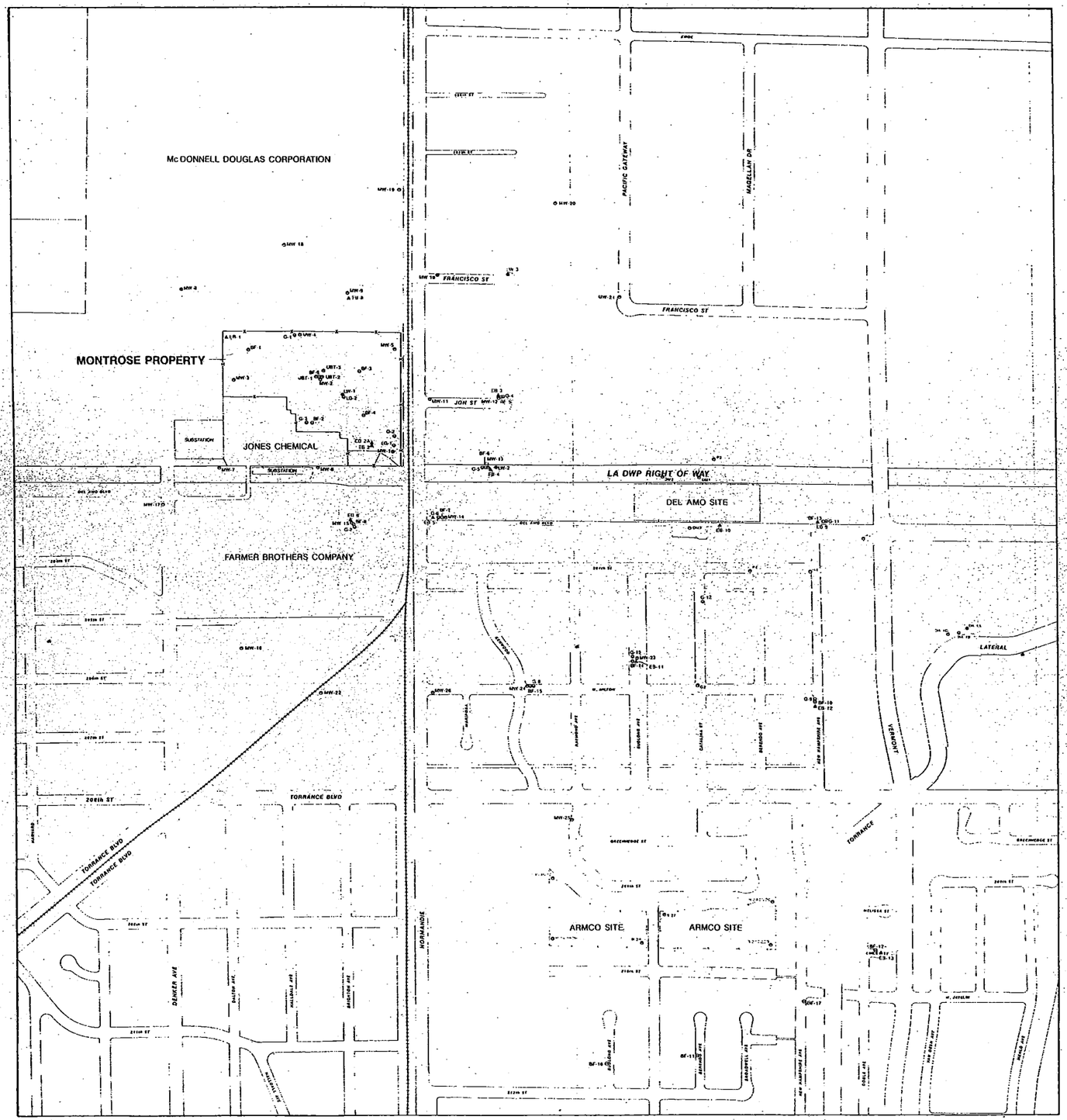
intake of each bladder pump was set at a depth halfway between the monitor well's static water level and the bottom of the casing. The intake of each gas drive pump was set immediately above the well casing bottom.

2.0 REFERENCES CITED

American Geological Institute, 1982. AGI Data Sheets for Geology in the Field, Laboratory, and Office. Falls Church, Virginia: American Geophysical Institute.

Hargis + Associates, Inc., 1988. Phase 2A, Remedial Investigative Work, Quality Assurance Project Plan, Montrose Site, Torrance, California. Prepared for Montrose Chemical Corporation, Torrance, California.

Metcalf & Eddy, 1989. Personal communication between Mr. Ron Lubke, Metcalf & Eddy, and Mr. Matthew Wiedlin, Hargis + Associates, Inc.



EXPLANATION

MONITOR WELLS
CONSTRUCTED BY HARDS + ASSOCIATES, INC.

- UW-1 — UPPER BELLFLOWER AQUITARD
- BF-1 — BELLFLOWER SAND
- G-1 — GAGE AQUIFER
- LW-1 — LYNWOOD AQUIFER
- 5.74 — INDICATES CONSTRUCTED BY OTHERS
- EB 1 / A — EXPLORATORY BOREHOLE

NOTE: BASE MAP FROM LOS ANGELES COUNTY, M.E. ASSESSORS STREET MAPS

0 200 400
FEET

MONTROSE SITE AND VICINITY
TORRANCE, CALIFORNIA

MONITOR WELLS AND EXPLORATORY BOREHOLES

HARDS + ASSOCIATES, INC. 4/90

PREPARED BY _____ REVIEWED BY _____

APPENDIX A

LITHOLOGIC LOGS FOR EXPLORATORY BORINGS, MONITOR WELLS, AND TEST WELLS

APPENDIX A

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TABLE A-1

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

Dates: September 25-27, 1989
Weather: Clear, hot, with occasional wind from west
Drill Rig: Ingersoll-Rand TH-100
Sample Method: Mud rotary cuttings and continuous core barrel
Location: McDonnell Douglas Corporation, southeast area of facility

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Solid Stem Auger 0 - 4 feet	NA	NA		No log, set surface casing.
Mud Rotary Cuttings collected at 5-foot intervals 4 - 45 feet	NA	NA	4 - 20	SANDY SILT (ML): Dark brown, 10YR 4/3, soft, nonplastic; sand is fine- to medium-grained, poorly sorted, angular; trace clay. At 7 feet, decreasing sand content. At 10 feet, grades olive-brown, 2.5Y 4/4, firm to stiff.
			20 - 27	SANDY SILT (ML): Olive-brown, 2.5Y 5/4 to 4/4, stiff to very stiff, nonplastic; sand is fine-grained with occasional medium grains, angular to subangular. At 24 feet, less sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 4 - 45 feet	NA	NA	27 - 28	SILTY CLAY (CL): Olive-brown, 2.5Y 5/4, soft, slightly plastic.
			28 - 32	SILTY SAND (SM): Olive-brown, 2.5Y 4/4, medium dense, fine-grained, well sorted.
			32 - 36	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT: Dark grayish brown, 2.5Y 4/2; sand is dense, fine-grained, well sorted; silt is stiff to very stiff, nonplastic; trace shell fragments.
			36 - 45	FOSSILIFEROUS SAND (SP): Brown, 2.5Y 5/6, to light yellow-brown, 2.5Y 6/4, dense, fine-grained, well sorted; fossils comprised of fragmented bivalve shells.
Continuous Core 45.0 - 50.0 feet	R = 3.9/5.0		45.0 - 46.1	SAND (SP): Olive-brown, 2.5Y 4/4, very moist to wet, medium dense, fine-grained, well sorted.
			46.1 - 46.2	CLAYEY SILT (ML): Yellowish brown, 10YR 5/6, very moist, stiff, nonplastic to slightly plastic; some sand.
			46.2 - 47.1	SAND (SP): Same as 45 - 46.1.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 45.0 - 50.0 feet	R = 3.9/5.0		47.1 - 48.9	SILTY SAND (SM): Multicolored bands of gray, red, orange, and olive-brown, very moist, medium dense, fine-grained, well sorted; trace mica; bands range in thickness from less than 0.01 foot to 0.1 foot.
Continuous Core 50.0 - 55.0 feet	R = 3.7/5.0		50.0 - 50.2	SILTY SAND (SM): Same as 47.1 - 48.9.
			50.2 - 50.4	SILT (ML): Olive, 5Y 5/4, moist, very stiff.
			50.4 - 50.8	SAND (SP): Multicolored layers of dark olive-gray, 5Y 3/2, olive, 5Y 4/3, and reddish brown, moist, medium dense, fine-grained, well sorted.
			50.8 - 51.2	SILT (ML): Same as 50.2 - 50.4 except orange-brown mottling.
			51.2 - 53.7	SAND (SP): Dark yellow-brown, 10YR 4/4, very moist, medium dense, fine-grained, well sorted; trace mica flakes and trace silt.
Continuous Core 55.0 - 60.0 feet	R = 4.9/5.0		55.0 - 59.2	SAND (SP): Olive 5Y 4/3, same as 51.2 - 53.7.
				At 56.2 feet, silt lamination.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 55.0 - 60.0 feet	R = 4.9/5.0		55 - 59.2	SAND (SP): (continued) At 56.7 - 60.0 feet, dark gray, 5Y 4/1, and yellow-brown coloring, 10YR 5/8. At 58.4 feet, grades orange-brown, 10YR 5/8; some olive coloration, 5Y 5/4.
			59.2 - 59.7	SILT (ML): Olive, 5Y 5/3, slightly moist to moist, very stiff, nonplastic.
			59.7 - 59.9	SAND (SP): Olive-brown, 2.5Y 4/4, moist, medium dense, fine-grained, well sorted, subangular to angular; trace to some mica flakes.
Continuous Core 60.0 - 65.0 feet	R = 4.5/5.0		60.0 - 62.8	SAND (SP): Same as 57.7 - 59.9. At 60.1 feet, silt lens, 0.03 foot thick. At 61.1 feet, grades dark gray, 2.5Y 4/0. At 61.5 feet, grades light olive-brown, 2.5Y 5/4, to yellowish brown, 10YR 5/5. At 61.9 feet, grades olive-brown, 2.5Y 4/4.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 60.0 - 65.0 feet	R = 4.5/5.0		62.8 - 63.3	INTERBEDDED SILT (ML) AND SAND (SP): Silt is olive-brown, 2.5Y 4/4, moist, stiff, nonplastic; sand is dark grayish brown, 2.5Y 4/2, wet, dense, fine-grained, well sorted.
			63.3 - 63.5	SAND (SP): Dark gray, 2.5Y 4/0, wet, dense, fine- grained, well sorted; trace mica flakes.
			63.5 - 63.8	INTERBEDDED SILT (ML) AND SAND (SP): Same as 62.8 - 63.3.
			63.8 - 64.2	SAND (SP): Olive-brown, 2.5Y 4/4, wet, dense, medium-grained, well sorted; some quartz grains imparting white colors.
			64.2 - 64.5	SILT (ML): Olive, 5Y 4/3, moist, firm, nonplastic; some sand.
Continuous Core 65.0 - 70.0 feet	R = 5.0/5.0		65.0 - 65.6	SILTY SAND (SM): Olive, 5Y 4/4, moist, very dense, fine-grained, well sorted.
			65.6 - 67.0	SAND (SP): Olive, 5Y 4/3, wet, medium dense, fine- to medium-grained, well sorted; trace mica; possible faint oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 65.0 - 70.0 feet	R = 5.0/5.0		67.0 - 67.4	CLAYEY SILT (ML) INTERBEDDED WITH SILTY CLAY (CL): Olive, 5Y 5/4, slightly moist; clayey silt is firm, silty clay is soft, slightly plastic; horizontal orange laminations, less than 0.01 foot thick.
			67.4 - 67.6	SAND (SP): Same as 63.8 - 64.2.
			67.6 - 70.0	SILT (ML) WITH SILTY SAND (SM) AND SAND (SP) INTERBEDS: Predominantly olive, 5Y 4/4, with numerous orange colored laminations approximately 0.01 foot thick; silt is firm, nonplastic; silty sand is medium dense, fine-grained, well sorted; containing vertical tubes filled with fine-grained sand, rust stained. At 69.1 feet, sand lens, medium-grained, 0.1 foot thick.
Continuous Core 70.0 - 75.0 feet	R = 0.0/5.0			No sample recovered.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 75.0 - 80.0 feet	R = 3.9/5.0		75.0 - 75.3	SAND (SP): Olive-gray, 5Y 4/2, wet, loose to medium dense, medium- to fine-grained, well sorted, subangular; trace mica, strong chemical odor.
			75.3 - 75.4	SILT (ML): Olive, 5Y 5/4, moist, stiff; some clay.
			75.4 - 76.3	SAND (SP) WITH SILT (ML) INTERBEDS: Sand is olive-gray, 5Y 4/2, wet, medium dense, fine-grained, well sorted; silt is olive, 5Y 5/4, slightly moist, stiff, nonplastic.
			76.3 - 76.7	SAND (SP): Same as 75.0 - 75.3.
				At 76.4, orange rust colored lens.
				At 76.6 feet, discontinuous silt lamination.
			76.7 - 77.2	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Dark olive-gray, 5Y 3/2, moist, sand is medium dense, fine-grained, well sorted; silt is stiff, nonplastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 75.0 - 80.0 feet	R = 3.9/5.0		77.2 - 78.5	SILT (ML): Olive, 5Y 5/4, slightly moist, stiff, nonplastic. At 77.6 feet, some sand laminations, rust colored.
			78.5 - 78.9	SAND (SP): Olive, 5Y 4/3, to olive-gray, 5Y 4/2, very moist to moist, dense, fine-grained, well sorted; some medium-grained sand.
Continuous Core 80.0 - 85.0 feet	R = 5.0/5.0		80.0 - 81.9	SAND (SP): Same as 78.5 - 78.9. At 81.5 - 81.9 feet, possible faint oily sheen.
			81.9 - 82.6	SILT (ML): Olive, 5Y 5/4, slightly moist, firm, nonplastic; some sandy silt, sand is fine-grained.
			82.6 - 84.4	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, fine-grained, well sorted, subangular; some silt; trace mica flakes. At 83.9 feet, some silt laminations; olive and orange colored.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 80.0 - 85.0 feet	R = 5.0/5.0		84.4 - 85.0	SANDY SILT (ML): Olive, 5Y 4/4, moist, soft to firm, nonplastic; sand is fine-grained; trace mica flakes.
Continuous Core 85.0 - 90.0 feet	R = 3.0/5.0		85.0 - 85.2	SANDY SILT (ML): Same as 84.4 - 85.0; wet, possible faint oily sheen.
			85.2 - 86.0	CLAYEY SILT (ML): Olive, 5Y 5/4, dry to slightly moist, very dense, moderately plastic.
			86.0 - 88.0	FOSSILIFEROUS SAND (SP): Olive-gray, 5Y 5/2, wet, cemented to very dense, fine-grained, moderately well sorted; fossils are fragmented bivalve shells including some oyster shell fragments; trace silt. At 86.2 feet, slightly orangish.
Continuous Core 90.0 - 95.0 feet	R = 3.9/5.0		90.0 - 90.7	FOSSILIFEROUS SAND (SP): Same as 86.0 - 88.0.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 90.0 - 95.0 feet	R = 3.9/5.0		90.7 - 93.4	SAND (SP) WITH SILT (ML) INTERBEDS: Light olive-brown, 2.5Y 3/2, wet, medium dense, fine-grained, well sorted, subangular; slight chemical odor; silt laminations sometimes discontinuous, olive, 5Y 5/4 and olive-yellow, 2.5Y 6/6, stiff to very stiff.
				At 92.0 feet, grades dark grayish brown, 2.5Y 4/2, fine- to medium-grained.
			93.4 - 93.9	SANDY SILT (ML): Olive, 5Y 5/3, slightly moist, firm, nonplastic; some yellow oxidized staining.
Continuous Core 95.0 - 100.0 feet	R = 5.0/5.0		95.0 - 95.2	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, fine-grained, well sorted, subangular to angular.
			95.2 - 96.4	SILTY SAND (SM) WITH SOME SILT (ML) INTERBEDS: Olive, 5Y 4/3, slightly moist, dense, fine-grained, well sorted; silt is slightly moist, stiff.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 95.0 - 100.0 feet	R = 5.0/5.0		96.4 - 100	SAND (SP): Olive-gray, 5Y 4/2, wet, loose, fine- to medium-grained, well sorted; occasional yellowish brown zones, 10YR 5/8, possible faint oily sheen.
Mud Rotary Cuttings collected at 5-foot intervals 100 - 125 feet	NA	NA	100 - 105	FOSSILIFEROUS SAND (SP): Pale olive, 5Y 6/3, to olive, 5Y 4/3, medium dense to dense, fine-grained, well sorted; fossils comprised of slightly weathered shells.
				At 104 feet, some silt.
			105 - 110	SAND (SP): Olive, 5Y 5/3, to olive-brown, 2.5Y 4/4, dense to slightly cemented, fine-grained, well sorted; some shells; some silt.
				At 106 feet, trace silt.
			110 - 115	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, to olive, 5Y 4/3, dense to very dense, fine-grained, well sorted; some shells.
			115 - 125	SAND (SP): Olive, 5Y 4/3 to 5Y 5/3, medium dense, fine-grained, well sorted; trace silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 100 - 125 feet	NA	NA	115 - 125	SAND (SP): (continued) At 120 feet, some shell fragments; no silt.
Continuous Core 125.0 - 127.5 feet	R = 0.0/2.5		125 - 127.5	SAND (SP): Based on geophysical logs.
Continuous Core 127.5 - 130.0 feet	R = 0.2/2.5		127.5 - 127.7	SAND (SP): Light olive-brown, 2.5Y 5/4, wet, loose, fine- to medium-grained, predominantly fine-grained, moderately well sorted, sub-angular.
Continuous Core 130.0 - 132.8	R = 0.6/2.8		130.0 - 130.6	SAND (SP): Light olive-brown, 2.5Y 5/4, wet, medium dense, fine- to medium-grained, predominantly fine-grained, moderately well sorted, subangular.
Continuous Core 132.8 - 138.0 feet			132.8 - 137.0	SAND (SP): Same as 130.0 - 130.6 except olive, 5Y 5/4.
			137.0 - 138.0	SILT (ML): Olive-gray, 5Y 4/2, wet, firm to stiff, nonplastic, some sand.

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NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 138.0 - 140.0 feet			138.0 - 140.0	SANDY SILT (ML): Dark gray, 5Y 4/1, very moist, firm, nonplastic.
Continuous Core 140.0 - 145.0 feet	R = 1.6/5.0		140.0 - 141.0	SILTY SAND (SM) AND SANDY CLAYEY SILT (ML): Dark gray, 5Y 4/4, to dark olive-gray, 5Y 3/2; sand is dense, fine-grained, well sorted; silt is stiff, nonplastic.
			141.0 - 141.5	SANDY CLAYEY SILT (ML): Dark olive-gray, 5Y 3/2, stiff, nonplastic.
			141.5 - 141.6	SAND (SP): Very dark gray, 5Y 3/1, dense to very dense, fine-grained, well sorted, subangular to subrounded.
			141.6 - 145	SANDY CLAYEY SILT (ML): Based on geophpysical log.
Mud Rotary Cuttings collected at 5-foot intervals 145 - 195 feet	NA	NA	145 - 155	SANDY CLAYEY SILT (ML) AND SILTY CLAY (CL): Dark olive-gray, 5Y 3/2, firm to stiff. At 150 feet, no sand, very dark gray, 5Y 3/1, plastic.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 145 - 195 feet	NA	NA	155 - 180	SAND (SP): Very dark gray, 2.5Y 3/0, dense, fine-grained, well sorted, subangular to subrounded; some silt. At 160 feet, trace silt. At 165 feet, some interbeds of cemented sand, olive-brown, 2.5Y 4/4. At 170 feet, some silt, grades dark gray, 2.5Y 4/0; some interbedded cemented sand zones, olive-brown, 2.5Y 4/4; some medium- and coarse-sized grains. At 175 feet, trace silt and trace coarse-sized grains, subangular.
			180 - 185	SANDY SILT (ML) INTERBEDDED WITH SILTY SAND (SM): Sandy silt is black, 5Y 2.5/1, firm, nonplastic; silty sand is dark gray, 5Y 4/1, medium dense, fine-grained, very well sorted.
			185 - 191	SAND (SP): Dark gray, 5Y 4/1, medium dense, fine-grained, well sorted; some coarse-sized grains.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 145 - 195 feet	NA	NA	185 - 191	SAND (SP): (continued)
				At 187 feet, fossiliferous; some silt.
			191 - 195	SILTY SAND (SM): Black, 5Y 2.5/2, firm to stiff, moderately plastic; sand is fine-grained.
Continuous Core 195.0 - 197.5 feet	R = 0.1/2.5		195.0 - 195.1	SILTY SAND (SM): Dark gray, 5Y 4/1, fine-grained, well sorted.
			195.1 - 197.5	SILTY SAND (SM): Based on geophysical log.
Mud Rotary Cuttings 197.5 - 200 feet			197.5 - 198	SILTY SAND (SM): Same as 195 - 195.1.
			198.0 - 200	FOSSILIFEROUS SANDY SILT (ML): Black, 2.5Y 2/0, stiff, nonplastic; sand is fine-grained, well sorted, subrounded.
Continuous Core 200 - 202.3 feet	R = 0.8/2.3		200 - 200.8	SILTY SAND (SM): Black, 2.5Y 2/0, moist to very moist, dense to very dense, fine-grained, very well sorted, subrounded; some shell fragments.
Continuous Core 200 - 202.3 feet	R = 0.8/2.3		200.8 - 202.3	SILTY SAND (SM): Based on geophysical log.

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ft/ppm = Feet; parts per million
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**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings 202.3 - 205 feet	NA	NA	202.3 - 205	SILTY SAND (SM): Same as 200.0 - 200.8 except slight increase in shell content; gastropod shells.
Continuous Core 205 - 210.0 feet	R = 0.4/5.0		205 - 205.4	FOSSILIFEROUS SAND (SP): Black, 2.5Y 2/0, very moist, dense, fine-grained, moderately well sorted, subrounded; fossils comprised of fragmented shells; some medium-sized grains.
			205.4 - 210	FOSSILIFEROUS SAND (SP): Based on geophysical logs.
Continuous Core 210.0 - 215.0 feet	R = 4.2/5.0		210.0 - 214.2	SILTY SAND (SM) WITH INTERBEDDED SANDY SILT (ML): Black, 2.5Y 2/0, very moist; sand dense, fine-grained, moderately well sorted, sub-rounded; some medium-sized grains; sandy silt is moist, firm to stiff, slightly plastic; interbed contacts are gradational.
Continuous Core 215.0 - 220.0 feet	R = 1.4/5.0		215.0 - 216.4	SILTY SAND (SM): Black, 2.5Y 2/0, moist, dense to very dense, fine-grained, very well sorted, subangular to subrounded. At 216.4 feet, some shells, 0.05 feet thick.

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NA = Not applicable

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**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Continuous Core 220.0 - 225.0 feet	R = 3.3/5.0		220.0 - 220.9	SILTY SAND (SM): Very dark gray, 5Y 3/1, very moist, dense to very dense, fine-grained, well sorted, subangular to subrounded.
			220.9 - 222.2	SANDY SILT (ML): Very dark gray, 5Y 3/1, moist, very stiff, moderately plastic.
			222.2 - 223.3	SILTY SAND (SM): Same as 220.0 - 220.9.
Continuous Core 225.0 - 230.0 feet	R = 0.0/5.0		224 - 232	SANDY CLAYEY SILT (ML): Very dark gray, 5Y 3/1; based on residue on sampler and geophysical logs.
Mud Rotary Cuttings collected at 5-foot intervals 235.0 - 265 feet	NA	NA	232.0 - 238.5	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Gray, 5Y 5/1, to bluish gray; sand is medium dense, medium- to fine-grained, well sorted, angular; silt is soft, nonplastic.
			238.5 - 239.0	SAND (SP): Blue-gray, similar to 5Y 5/1, very dense, medium- to coarse-grained, moderately sorted, angular.
			239.0 - 240.0	SANDY SILT (ML) AND SILTY SAND (SM): Blue-gray, similar to 5Y 5/1, silt is soft, nonplastic; sand is medium dense, fine- to coarse-grained, poorly sorted, angular.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 235.0 - 265 feet	NA	NA	240.0 - 241.5	SILT (ML): Bluish gray, soft to firm; trace clay and trace sand; slightly plastic.
			241.5 - 255.5	SAND (SP): Bluish gray, 2.5Y 4/0, dense to very dense, medium- to coarse-grained, moderately sorted, angular to subangular; grains comprised primarily of feldspars and quartz; some silt interbeds, soft; slightly plastic.
				At 245 feet, no silt interbeds.
				At 246 - 247 feet, trace silt.
			257 - 258.5	SILT (ML): Bluish gray, moist to slightly moist, firm, nonplastic.
			258.5 - 259.5	SILTY SAND (SM): Blue-gray, loose to medium dense, fine- to medium-grained, poorly sorted, angular to subangular.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-1 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 235.0 - 265 feet	NA	NA	259.5 - 265	SAND (SW) AND GRAVEL (GW): Gray, 7.5YR 5/0, medium dense; sand is fine- to coarse-grained; gravel is fine-grained, poorly sorted, angular, some subrounded grains; grains are comprised of quartz, feldspars and some mafics; increasing size with depth and increasing mafic content with depth. At 261 - 262 feet, trace shell fragments.

TOTAL DEPTH OF BOREHOLE: 265 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9

Dates: October 29-30, 1989
Weather: Sunny cool mornings, sunny warm afternoons, occasional breezes from west
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings, 5-1/2-inch drag bit and soil pitcher core sampler
Location: Del Amo Boulevard, east of New Hampshire Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 62 feet	NA	NA	0 - 62	No samples collected for lithologic logging.
Mud Rotary Cuttings collected at 5-foot intervals 62 - 75 feet	NA	NA	62 - 68	INTERBEDDED SANDY SILT (ML) AND SILTY SAND (SM): Pale olive, 5Y 6/3, with some olive-yellow, 5Y 6/6; silt is firm, nonplastic; sand is fine-grained, well sorted.
			68 - 70	SANDY SILT (ML): Olive, 5Y 5/4, soft, nonplastic; sand is fine-grained, well sorted.
			70 - 71	SILTY SAND (SM): Pale olive, 5Y 6/3, medium dense, fine-grained, well sorted.
			71 - 75	CLAYEY SILT (ML): Olive-yellow, 5Y 6/8, stiff, nonplastic; some fine-grained sand; some clayey silt interbeds, olive-gray, 5Y 5/2, stiff, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 75 - 78 feet	R = 1.0/3.0		75 - 76	CLAYEY SILT (ML): Same as 71 - 75.
Mud Rotary Cutings collected at 5-foot intervals 78 - 115 feet	NA	NA	78 - 86	SAND (SP): Olive-gray, 5Y 5/2, loose to medium dense, fine-grained, well sorted, subangular; some silt; trace bivalve shells, unweathered shell fragments.
			86 - 105	SILTY SAND (SM): Olive, 5Y 5/4, dense, fine-grained, well sorted; occasional sand lenses. At 95 feet, increase in silt content; some cemented sand and some orange rust discolorations. At 100 feet, some silt interbeds, very dense.
			105 - 115	SILTY SAND (SM) WITH SAND (SP) INTERBEDS: Olive, 5Y 5/3, very dense to dense, fine-grained, well sorted, trace shells.
Pitcher Core Sampler 115 - 118 feet	R = 2.6/3.0		115 - 117.6	SAND (SP): Brownish yellow, 5Y 6/6, wet to very moist, medium dense, fine-grained, well sorted, subangular to subrounded.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 118 - 135 feet	NA	NA	118 - 122	SAND (SP): Same as 115 - 117.6. At 120 feet, some medium-grained sand.
			122 - 126	SILTY SAND (SM): Olive, 5Y 5/3, very dense to dense, fine-grained, well sorted; some sandy silt, soft, nonplastic.
			126 - 130	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/4, very dense to cemented, fine-grained, well sorted; fossils comprised of brown mussel shells, slightly weathered, fragmented; some white bivalve shells.
			130 - 135	SAND (SP): Olive, 5Y 5/4, very dense, fine-grained, well sorted; trace shell fragments.
Pitcher Core Sampler 135 - 138 feet	R = 2.7/3.0		135 - 137.0	FOSSILIFEROUS SAND (SP): Olive-gray, 5Y 5/2, to bluish gray, wet, very dense to cemented, fine-grained, well sorted; sand grains are predominantly quartz and feldspars with some biotite; fossils comprised of shells, fragmented, brown to white, moderately weathered; some fossils weathered to very small chalky pieces.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 135 - 138 feet	R = 2.7/3.0		137.0 - 137.7	CLAYEY SILT (ML) AND SILTY CLAY (CL): Olive-gray, 5Y 5/2, very moist, firm, moderately plastic.
Mud Rotary Cuttings collected at 5-foot intervals 138 - 180 feet	NA	NA	138 - 143	CLAYEY SILT (ML): Greenish bluish gray, moist, firm, moderately plastic; some shells.
			143 - 150	FOSSILIFEROUS SAND (SP) AND SANDY FOSSILS: Bluish gray, dense, fine-grained, well sorted; fossils comprised of bivalves and gastropods including turritella shells. At 149 feet, clay lens, blue-gray, soft, moderately plastic.
			150 - 153	SANDY SILT (ML): Blue-gray, soft, nonplastic.
			153 - 157	FOSSILIFEROUS SAND (SP): Same as 143 - 150.
			157 - 161	SANDY SILT (ML): Blue-gray, soft to firm, nonplastic, some fossiliferous sand.

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NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 138 - 180 feet	NA	NA	161 - 166	FOSSILIFEROUS SAND (SP) INTERBEDDED WITH SANDY SILT AND SILT (ML): Bluish gray, dense, fine-grained, well sorted; silt is bluish gray, firm to stiff, nonplastic; fossils comprised of gastropod, oyster and other bivalve shells, some whole, slightly to moderately weathered.
			166 - 171	SILT (ML): Blue-gray, firm to stiff, nonplastic; some sand; trace fossil shells.
			171 - 180	SAND (SP): Blue-gray, medium dense, fine-grained, well sorted, subangular to angular.
Pitcher Core Sampler 180 - 183 feet	R = 2.7/3.0		180 - 182.7	SAND (SP): Dark gray, 2.5Y 4/0, wet, fine-grained, well sorted, subangular; trace medium sized grains.
Mud Rotary Cuttings collected at 5-foot intervals 183 - 225 feet	NA	NA	183 - 184.5	SAND (SP): Same as 180 - 182.7; trace medium to coarse grains; medium-grained sands are white quartz; coarse are black quartz.
			184.5 - 195	SAND (SW): Gray, 5Y 5/1, to dark gray, 5Y 4/1, dense, fine- to coarse-grained, poorly sorted, angular to subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 183 - 225 feet	NA	NA	195 - 217	SAND (SP): Gray, 5Y 5/1, to dark gray, 5Y 4/1, dense, fine-grained, moderately well sorted, some medium to coarse grains. At 200 feet, well sorted, subangular to subrounded. At 205 feet, trace cream-colored bivalve shells, nonweathered to slightly weathered, fragmented. At 210 feet, occasional silty sand lenses.
			217 - 220.5	SILTY SAND (SM): Bluish gray, dense, fine-grained, well sorted; some cream-colored bivalve shells, nonweathered, fragmented from drilling technique.
			220.5 - 224.5	FOSSILIFEROUS SILTY SAND (SM) WITH SANDY SILT (ML) AND CLAYEY SILT (ML) INTERBEDS: Dark gray, 2.5Y 4/0, dense, fine-grained, well sorted, subrounded; clayey silt is plastic; fossils comprised of gastropod shells.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 225 - 228 feet	R = 2.0/3.0		224.5 - 227	INTERBEDDED SILTY SAND (SM) AND SANDY SILT (ML): Very dark gray, 2.5Y 3/0, moist, very dense, fine-grained, well sorted, subangular; silt is firm, nonplastic.
Mud Rotary Cuttings collected at 5-foot intervals 228 - 245 feet	NA	NA	228 - 232.5	SILTY SAND (SM): Very dark gray, 2.5Y 3/0, dense, fine-grained, subangular to subrounded.
			232.5 - 236	SILTY SAND (SM): Very dark gray, 2.5Y 3/0, very dense, fine-grained, well sorted.
				At 234 - 235 feet, some shells.
			236 - 240	SILTY SAND (SM): Very dark gray, 2.5Y 3/0, very dense, fine-grained, slightly plastic.
			240 - 246	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Dark gray, 2.5Y 4/0, to very dark gray, 2.5Y 3/0, dense to very dense, fine-grained, well sorted, subangular to subrounded, moderately plastic.
				At 241 - 243 feet, generally coarser.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 245 - 248 feet	R = 2.6/3.0		246 - 247.6	SILTY SAND (SM): Dark gray, 2.5Y 4/0, moist, very dense, fine-grained, well sorted, sub-angular to subrounded.
Mud Rotary Cuttings collected at 5-foot intervals 248 - 280 feet	NA	NA	248 - 251	INTERBEDDED SILTY SAND (SM) AND SANDY SILT (ML): Same as 240 - 246.
			251 - 258.5	SANDY SILT (ML): Dark gray, 2.5Y 4/0, to very dark gray, 2.5Y 3/0, firm, slightly plastic. At 253.5 - 254.5 feet, silty sand. At 250 feet, some silty clay zones, moderately plastic.
			258.5 - 277.5	SAND (SP): Dark gray, 2.5Y 4/0, slightly dense, fine- to medium-grained, moderately well sorted, subangular to subrounded. At 270 feet, slightly coarser-grained. At 270 - 273 feet, some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-2 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-9
Page 9

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 248 - 280 feet	NA	NA	277.5 - 278.5	SANDY CLAYEY SILT (ML): Dark gray, 2.5Y 4/0, stiff, moderately plastic.
			278.5 - 280	SAND (SP): Same as 258.5 - 277.5.

TOTAL DEPTH OF BOREHOLE: 280 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-3

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-10

Dates: October 16, 1989
Weather: Overcast, warm; hazy sun with light westerly winds
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings and pitcher core sampler
Location: Del Amo Alley between New Hampshire Avenue and Normandie Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 70 feet	NA	NA	0 - 70	No samples collected for lithologic logging.
Pitcher Core Sampler 70 - 73 feet			70 - 73	Sample collected for analysis of total organic carbon.
Mud Rotary Cuttings collected at 5-foot intervals 73 - 117 feet	NA	NA	73 - 75	SILTY SAND (SM): Light olive-brown, 5Y 6/2, wet, loose to firm, fine-grained sand, moderately plastic, iron oxide stains.
			75 - 117	SAND (SP): Gray, 5Y 6/1, wet, fine-grained, frequent sandy silt interbeds, some shell fragments, trace poorly cemented sand fragments up to 1/8-inch diameter, micaceous. At 105 - 110 feet, increased sand/sandy silt interbeds.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-3 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-10
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 73 - 117 feet	NA	NA	75 - 117	SAND (SP): (continued) At 110 - 115 feet, increase in cemented sand fragments up to 1/2-inch diameter.

TOTAL DEPTH OF BOREHOLE: 117 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11

Dates: August 17-19, 1989
Weather: Mornings: cloudy, 70°, occasional slight breeze from west
Afternoons: clear to partly cloudy, 75°, moderate wind from west
Drill Rig: Ingersoll-Rand TH-100
Sample Method: Mud rotary wireline core and mud rotary cuttings
Location: Budlong Avenue, north of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 75 feet	NA	NA	0 - 75	No samples collected for lithologic logging. Refer to lithologic log for monitor well MW-23.
Wireline Core 75 - 80 feet	R = 3.0/5.0	NA	75 - 78	SAND (SP): Very dark gray-brown, 10YR 3/2, wet, loose, fine-grained, well sorted, angular to subangular; some silt interbeds.
Mud Rotary Cuttings collected at 5-foot intervals 80 - 125 feet	NA	NA	80 - 114	SAND (SP): Very dark gray-brown, 10YR 3/2, fine-grained, subangular; some silt interbeds, soft. At 88 feet, silty sandy clay lens, olive, 5Y 5/3, soft. At 90 feet, occasional silt lenses, light olive-brown, 2.5Y 5/4, soft. At 99 feet, no silt; some medium-grained sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 80 - 125 feet	NA	NA	80 - 114	SAND (SP): (continued) At 104 feet, occasional silty sand interbeds. At 109 feet, clayey silt lens, very dark grayish brown, 2.5Y 3/2, stiff, nonplastic.
			114 - 119	FOSSILIFEROUS SAND (SP): Olive-brown, 2.5Y 4/4, very dense to cemented, fine-grained, well sorted, angular.
			119 - 120.5	SANDY FOSSILS (SP): White, bivalves, fragmented and whole to 3/4-inch diameter, non-weathered to trace weathered; some silt.
			120.5 - 125	CLAYEY SILT (ML): Greenish olive-gray, 5Y 5/2, soft, moderately cohesive, slightly to moderately plastic.
Wireline Core 125 - 130 feet	R = 4.1/5.0	NA	125 - 127.5	SILT (ML): Greenish olive-gray, 5Y 5/2, soft, moderately cohesive, nonplastic; trace clay.
			127.5 - 129.1	SAND (SP): Olive-gray, 5Y 4/2, slightly dense, fine-grained, well sorted, angular to sub-angular; some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 130 - 150 feet	NA	NA	130 - 140.5	SAND (SP): Olive-gray, 5Y 4/2, dense to slightly indurated, fine- to medium-grained moderately sorted; some shell fragments; trace silt. At 134 feet, no shells. At 137 - 139 feet, silt lens, black, 5Y 2.5/1; some clay, soft to stiff.
			140.5 - 147	CLAY (CH) WITH SAND (SP) INTERBEDS: Blue-gray, 2.5Y 4/0, soft, moderately plastic; sand is fine-grained, well sorted. At 141 feet, black lens; thickness uncertain. At 145.5 - 147 feet, sand lens, blue-gray, very dense, fine-grained, well sorted.
			147 - 149	CLAYEY FOSSILS: Fragmented and complete shells to 1-1/2-inch diameter, white bivalves and blue-gray oysters; little weathering.
			149 - 150	CLAY (CH): Blue-gray, soft, moderately plastic; white bivalve shell fragments and blue-gray shell fragments to 1-inch diameter.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 150 - 151 feet	R = 1.0/1.0		150 - 150.5	CLAY (CH): Same as 149 - 150.
Wireline Core 151 - 155 feet	R = 4.0/4.0		150.5 - 155	SAND (SP): Bluish gray to dark gray, 2.5Y 4/0, loose to slightly dense, fine-grained, well sorted, subrounded to subangular; trace silt.
Mud Rotary Cuttings collected at 5-foot intevals 155 - 209 feet	NA	NA	155 - 183	SAND (SP): Same as 150.5 - 155 except with occasional silty sand interbeds. At 160 - 162 feet, occasional sandy silt and silty sand interbeds. At 169 feet, some medium-grained sand. At 174 feet, increase in medium-grained sand; moderately sorted; brown bivalve shell fragments, weathered; black silty sand pieces. At 176 feet, trace medium sand grains and some shell fragments.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 155 - 209 feet	NA	NA	155 - 183	SAND (SP): (continued) At 179 feet, clayey silt lens, less than 1 foot thick. At 181 feet, some silty sand interbeds, soft.
			183 - 187	SAND (SP): Bluish gray to very dark gray, 2.5Y 3/0, medium dense, fine- to medium-grained, moderately sorted, subangular to subrounded; some silt interbeds alternating firm and hard.
			187 - 194	SILTY SAND (SM): Very dark gray, 2.5Y 3/0, to bluish gray, loose, fine-grained, well sorted, subangular; some sandy silt, soft. At 189 feet, grades dense to slightly cemented.
			194 - 196	SHELL FRAGMENTS: White; some silty sand.
			196 - 202.5	SAND (SP): Very dark gray, 2.5Y 3/0, to bluish gray, very dense, fine-grained, well sorted.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 155 - 209 feet	NA	NA	196 - 202.5	At 198 feet, some silty sand interbeds, same as 189 - 194; some shell fragments; trace black organic material up to 1/4-inch diameter, friable, grainy composition; some organic material cemented together.
			202.5 - 207.5	SANDY SILT (ML): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, soft to firm, nonplastic; sand is fine-grained, well sorted. At 204 feet, cemented sand lens.
			207.5 - 209	SAND (SP): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, loose to medium dense, fine-grained, well sorted, some soft silt; some brown shell fragments.
Wireline Core 209 - 210 feet	R = 0.8/1.0		209 - 209.8	FOSSILIFEROUS SAND (SP): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, wet, very dense to cemented, fine-grained, well sorted; shells are bivalves and gastropods, slightly weathered.
Wireline Core 210 - 214 feet	R = 4.0/4.0		210.0 - 211.0	FOSSILS WITH SAND: Bivalves and gastropods to 1-inch diameter, gastropods are long, white brown, tan and cream, mostly fragmented, unweathered.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 210 - 214 feet	R = 4.0/4.0		211.0 - 212.0	SANDY SILT (ML) AND SILT (ML): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, moist, firm, nonplastic; sand "tube", mostly vertical, approximately 3/4-inch diameter extending approximately 3 inches in length.
			212.0 - 213.2	SAND (SP): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, wet, slightly dense, fine-grained, well sorted; some fossils.
			213.2 - 214.0	SILT (ML): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, moist, firm, nonplastic; some sand.
Wireline Core 214 - 215 feet	R = 1.0/1.0		214.0 - 214.5	SILT (ML): Same as 213.2 - 214.0.
			214.5 - 215.0	SAND (SP): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, slightly dense, fine-grained, well sorted.
Wireline Core 215 - 219 feet	R = 4.0/4.0		215.0 - 218.5	SAND (SP): Same as 214.5 - 215.0.
			218.5 - 219.0	SILT (ML): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, slightly moist, firm, nonplastic; some clay and some sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 219 - 224 feet	R = 5.0/5.0		219.0 - 224.0	SILT (ML): Same as 218.5 - 219 except slightly plastic.
				At 219 feet, occasional thin sand lenses 0.1 to 0.25 feet thick, blue-gray to very dark gray, 2.5Y 3/0.
Wireline Core 224 - 229 feet			224.0 - 225.0	SILT (ML): Same as 219.0 - 224.0 except with some sand and some clay.
			225.0 - 227.0	SANDY SILT (ML): Blue-gray to very dark gray, 2.5Y 3/0; moist, firm, nonplastic; gradational contact above.
				At 226 feet, trace white shell fragments.
			227.0 - 229.0	SAND (SP) WITH SILTY SAND (SM) INTERBEDS: Blue-gray to very dark gray, 2.5Y 3/0, wet, medium dense, fine-grained, well sorted; interbeds approximately 0.25 feet thick.
Wireline Core 229 - 234 feet	R = 4.7/5.0		229.0 - 231.0	SILTY CLAY (CL): Blue-gray to very dark gray, 2.5Y 3/0, slightly moist, stiff, moderately plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 9

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 229 - 234 feet	R = 4.7/5.0		231.0 - 233.0	CLAYEY SILT (ML) AND SANDY SILT (ML): Blue-gray to very dark gray, 2.5Y 3/0, slightly moist, stiff to very stiff, slightly plastic; gradational contact above.
			233.0 - 233.7	SAND (SP): Dark gray, 2.5Y 4/0, wet, slightly dense, fine- to medium-grained, moderately sorted, subangular to rounded; some silt lenses.
Wireline Core 234 - 239 feet	R = 1.2/5.0		234.0 - 235.2	SAND (SP): Same as 233.0 - 233.7.
			235.2 - 239	SAND (SP): Based on geophysical log.
Wireline Core 239 - 244 feet	R = 3.1/5.0	NA	239.0 - 240.0	SAND (SP): Same as 233.0 - 233.7.
			240.0 - 242.1	CLAY (CH): Dark gray, 2.5Y 4/0, dry, very stiff, moderately plastic; some silt.
			242.1 - 244.0	CLAY (CH): Based on geophysical logs.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 10

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 244 - 249 feet	R = 3.2/5.0	NA	244.0 - 246.5	CLAY (CH): Same as 240.0 - 242.1.
			246.5 - 247.2	SAND (SP): Very dark gray, 2.5Y 3/0, wet, loose to slightly dense, fine- to medium-grained, well sorted, subangular to subrounded; trace shells, bivalves; whole but disintegrate when disturbed.
			247.2 - 249.0	SAND (SP): Based on geophysical logs.
Wireline Core 249 - 254 feet	R = 2.2/5.0		249.0 - 250.0	SAND (SP): Same as 246.5 - 247.2.
			250.0 - 251.2	SILT (MH): Very dark gray, 2.5Y 3/0, slightly moist, stiff, nonplastic; occasional brown colored plant fossils resembling leaves, altered, possibly siliceous, approximately 1/2 inch wide by 1-1/2 inch long, trace fine sand grains.
			251.2 - 254.0	SILT (MH): Based on geophysical logs.
Wireline Core 254 - 259 feet	R = 4.8/5.0		254.0 - 254.75	SILT (MH): Same as 250.0 - 251.2.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-4 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-11
Page 11

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 254 - 259 feet	R = 4.8/5.0	NA	254.75 - 255.25	SHALE: Black, 5YR 2.5/1, wet, abundant organic material including root hairs.
			255.25 - 258.8	SILTY SAND (SM): Black, 5YR 2.5/1, grading to gray, 10YR 5/1, wet, dense, fine- to medium-grained, moderately sorted, subangular to subrounded, organic content decreases with depth.

TOTAL DEPTH OF BOREHOLE: 259 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12

Dates: November 18-20, 1989
Weather: Clear, hot, with slight breeze from west
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings
Location: New Hampshire Avenue south of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 65 feet	NA	NA	0 - 65	No samples collected; logging begins at water table.
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	65 - 75	SANDY SILT (ML) AND SILTY SAND (SM): Gray, 5Y 5/1, firm, nonplastic; silty sand is olive-yellow, 5Y 6/6, dense, fine-grained, well sorted.
			75 - 80	SAND (SP) WITH SILT (ML) INTERBEDS: Olive, 5Y 5/4, very loose, fine- to medium-grained, moderately sorted, subangular to subrounded; silt is dark gray, 5Y 4/1, firm, slightly plastic.
			80 - 85	SAND (SP): Pale olive, 5Y 6/3, medium dense, fine-grained, well sorted, subangular to subrounded, some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	85 - 95	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Light olive-brown, 2.5Y 5/4, dense, fine-grained, well sorted, subangular, some cemented sand up to 1/8-inch diameter; sandy silt is dark gray, 2.5Y 4/0, stiff, nonplastic.
			95 - 100	SANDY SILT (ML) WITH SILTY SAND (SM) INTERBEDS: Same as 85 - 95, except increase in silt content; trace fossils to 1/2-inch diameter.
			100 - 105	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Light olive-brown, 2.5Y 5/4, dense, fine-grained, well sorted, subangular to subrounded, some cemented sand; sandy silt is dark gray, 5Y 4/1, stiff, slightly plastic.
			105 - 110	SILTY SAND (SM) WITH SANDY CLAYEY SILT (ML): Same as 100 - 105, except sandy clayey silt is dark gray, 5Y 4/1, firm to stiff, moderately plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	110 - 115	SILTY CLAYEY SAND (SM) WITH SANDY CLAYEY SILT (ML) INTERBEDS: Olive, 5Y 5/4, dense, fine-grained, well sorted, subrounded; sandy clayey silt is dark gray, 5Y 4/1, stiff, moderately plastic.
			115 - 120	SAND (SP): Light olive-brown, 2.5Y 5/6, medium dense, fine-grained, moderately well sorted, subangular to subrounded, bivalve fossils, cemented sand up to 1/2-inch diameter; some silty sand.
			120 - 125	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/4, medium dense, with cemented fragments, fine- to medium-grained, moderately well sorted, subrounded, multicolored bivalve fossils. At 124 feet, cemented sand.
			125 - 131	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/4, medium dense, fine- to medium-grained, moderately well sorted, subrounded, multicolored bivalve fossils, trace cemented sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	131 - 140	INTERBEDDED SANDY, CLAYEY SILT (ML) AND SILTY FOSSILIFEROUS SAND (SM): Dark gray, 2.5Y 4/0 to 5Y 5/4, firm to stiff, nonplastic; silty fossiliferous feet sand is grayish brown, 2.5Y 5/2, medium dense with cemented sand, fine-grained, moderately well sorted, subangular to subrounded, multicolored bivalve fossils up to 1 inch long.
			140 - 145	SANDY CLAYEY SILT (ML): Dark gray, 2.5Y 4/0, firm, plastic; some silty sand, dark grayish brown, 2.5Y 4/2, medium dense, fine-grained, moderately well sorted, subrounded.
			145 - 150	FOSSILIFEROUS SAND (SP): Light olive-gray, 5Y 6/2, medium dense, fine- to medium-grained, moderately well sorted, subrounded, gastropod and bivalve fossils.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	150 - 155	INTERBEDDED SANDY SILTY CLAY (CL), SILTY CLAYEY SAND (SC), AND SANDY CLAYEY SILT (ML): Sandy silty clay and sandy clayey silt are dark gray, 2.5Y 4/0, firm to stiff, moderately plastic to plastic; silty clayey sand is olive, 5Y 4/3, medium dense to dense, fine-grained, well sorted, subrounded.
			155 - 160	SILTY SAND (SM) AND SANDY SILT (ML): Dark blue gray, 2.5Y 4/0, dense to very dense, fine-grained, well sorted, subrounded; sandy silt is olive-brown, 2.5Y 4/4, firm to stiff, non-plastic to moderately plastic.
			160 - 165	SANDY CLAYEY SILT (ML): Dark blue-gray, 2.5Y 4/0, firm, plastic.
			165 - 170	SANDY CLAYEY SILT (ML) WITH FOSSILIFEROUS SILTY SAND (SM) INTERBEDS: Same as 160 - 165; fossiliferous silty sand is gray, 2.5Y 5/0, medium dense, fine-grained, well sorted, subrounded, bivalve fossils up to 3/4 inch long, with mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	170 - 175	SAND (SP): Olive-gray, 5Y 5/2, dense, fine-grained, well sorted, subrounded, with mica; some sandy clayey silt, dark gray, 2.5Y 4/0, firm, slightly plastic.
			175 - 180	SAND (SP) WITH SANDY CLAYEY SILT (ML) INTERBEDS: Gray, 5Y 5/1, to dark blue-gray, 2.5Y 4/0, dense, fine-grained, well sorted, subangular to subrounded, with mica; sandy clayey silt is dark gray, 2.5Y 4/0, firm, slightly plastic.
			180 - 185	SAND (SP): Gray, 5Y 5/1, to dark blue-gray, 2.5Y 4/0, dense, fine- to medium-grained, moderately well sorted, subangular to subrounded, with mica, trace coarse quartz; some sandy clayey silt.
			185 - 195	SAND (SP): Gray, 5Y 5/1, to dark blue-gray, 2.5Y 4/0, dense, fine- to coarse-grained, moderately well sorted, subangular to subrounded, with mica, some bivalve fossils.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	195 - 200	SAND (SP): Gray, 5Y 5/1, to dark blue-gray, 2.5Y 4/0, dense, fine-grained, well sorted, subangular to subrounded, with mica, some silt.
			200 - 205	FOSSILIFEROUS SILTY SAND (SM): Dark blue-gray, 5Y 4/0, dense, fine-grained, well sorted, subrounded, bivalve fossils, brownish black wood particles to 1/4 inch long.
			205 - 210	SILTY SAND (SM): Dark blue-gray, 5Y 4/1, dense, fine-grained, well sorted, subrounded, some fossils.
			210 - 219	FOSSILIFEROUS SILTY SAND (SM): Dark blue-gray, 5Y 4/1, dense, with some cemented sand, fine-grained, well sorted, subrounded, gastropod and bivalve fossils.
			219 - 225	SANDY CLAYEY SILT (ML) AND SILTY CLAY (CL): Dark blue-gray, 2.5Y 4/0, stiff, moderately plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	225 - 232	SANDY CLAYEY SILT (ML): Dark blue-gray, 2.5Y 4/0, stiff, moderately plastic; some silty sand (SM), silty sand is dark blue-gray, 2.5Y 4/0, very dense, fine-grained; well sorted, sub-rounded.
			232 - 238	SILTY SAND (SM): Dark blue-gray, 2.5Y 4/0, very dense, fine-grained; well sorted, sub-rounded, wood particles; some clayey silt, dark blue-gray, 2.5Y 4/0, stiff, moderately plastic.
			238 - 240	SANDY CLAYEY SILT (ML): Dark blue-gray, 2.5Y 4/0, stiff to very stiff, moderately plastic; some silty sand (SM), silty sand is dark blue-gray, 2.5Y 4/0, very dense, fine-grained, well sorted, subangular.
			240 - 246	CLAYEY SILT (ML) AND SILTY CLAY (CL): Dark blue-gray, 2.5Y 4/0, stiff to very stiff, moderately plastic to plastic.
			246 - 250	SILTY CLAYEY SAND (SM): Dark blue-gray, 2.5Y 4/2, very dense, fine- to medium-grained, moderately well sorted, subangular to sub-rounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-5 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-12

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 65 - 260 feet	NA	NA	250 - 255	SAND (SP): Gray, 5Y 5/1, dense, fine- to coarse-grained, poorly sorted, subangular to subrounded; some clayey silt.
			255 - 260	SAND (SP): Gray, 5Y 5/1, dense, medium- to coarse-grained, moderately well sorted, subangular to subrounded, trace silt and fine sand.

TOTAL DEPTH OF BOREHOLE: 260 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6

LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13

Dates: November 27-28, 1989
Weather: Clear, warm, with occasional slight breezes from west
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings and pitcher core sampler
Location: Linley Avenue, east of Doble Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 80 feet	NA	NA	0 - 2	GRAVELLY CLAY (CL) AND CLAYEY GRAVEL (GC): Black, 5Y 2/1, to very dark gray, 5Y 3/1, (road fill).
			2 - 9	SANDY SILTY CLAY (CL): Bluish-gray, soft, moderately plastic.
			9 - 10	SILTY SAND (SM) AND SAND (SP): Olive-brown, 5Y 4/4, slightly moist; loose to medium dense, medium- to coarse-grained, poorly sorted, angular to subangular, some gravel to 1/2-inch diameter.
			10 - 11	GRAVELLY SAND: Olive-brown, 5Y 4/4, loose, medium- to coarse-grained, poorly sorted; gravel up to 1-inch diameter.
			11 - 15	SANDY SILT (ML): Light olive-brown, 5Y 5/4, slightly moist, firm; sand is fine-grained.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 80 feet	NA	NA	15 - 17	CLAYEY SILT (ML/MH): Very dark gray, 2.5Y 3/0, black, 2.5Y 2/0, slightly moist, soft to firm, slightly plastic; trace coarse sand.
			17 - 24	SILT (ML/MH): Very dark gray, 2.5Y 3/0, to black, 2.5Y 2/0, slightly moist, firm; some sand, medium- to coarse-grained; some fossils comprised of slightly weathered bivalve shells; some organic material. At 20 feet, dark rust, green and gray stains; increase in organic content.
			24 - 25	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, slightly moist, fine-grained, well sorted, dense.
			25 - 30	SAND (SW): Light olive-brown, 2.5Y 5/6, cemented to very dense, fine- to coarse-grained, poorly sorted, subangular to angular; fine-grained fraction mostly cemented.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 80 feet	NA	NA	30 - 39	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT (ML): Silty sand is olive-yellow, 2.5Y 6/8, dense, fine-grained, well sorted; sandy silt is light olive-brown, 2.5Y 5/4, firm, nonplastic. At 36 feet, occasional black clay lenses, soft, plastic; and occasional orange rust clayey silt zones, slightly plastic.
			39 - 41.5	SAND (SP): Light olive-brown, 2.5Y 5/4, very dense, fine-grained, well sorted.
			41.5 - 45	SILT (ML): Olive-brown, 2.5Y 4/4, trace moisture, firm, nonplastic, some silty sand lenses 0.1 to 0.2 feet thick, rust to orange colored.
			45 - 55	SILT (ML) AND SANDY SILT (ML): Orange-brown to light olive-brown, 2.5Y 5/4, firm, nonplastic; sand is fine-grained; some silty sand lenses and clay lenses; clay very dark gray, 2.5Y 3/0, soft, plastic. At 50 - 51 feet, clay lens. At 53 - 53.5 feet, sand with some silt, very dark gray, 2.5Y 3/0, fine-grained, well sorted.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 80 feet	NA	NA	55 - 59	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, medium dense, fine-grained, well sorted; some sandy silt and silt zones, and some very dark gray and olive colored sand lenses.
			59 - 60	SILTY CLAY (CL): Black, 2.5Y 2/0, soft, moderately plastic; trace sand.
			60 - 62	SANDY SILT (ML): Grayish brown, 2.5Y 5/2, to light olive-brown, 2.5Y 5/4, firm, nonplastic.
			62 - 71	SAND (SP/SM): Grayish brown, 2.5Y 5/2, dense, some cemented zones, fine-grained, well sorted; some silty sand. At 65 feet, no silty sand, sand grades to olive, 5Y 5/3, medium dense; trace silt.
			71 - 74	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Olive, 5Y 5/3, dense, fine-grained; silt is firm to soft, nonplastic.
			74 - 80	SAND (SP): Olive-gray, 5Y 5/2, loose to medium dense, fine-grained, well sorted; some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 80 - 83 feet	R = 2.6/3.0		80 - 82.6	SAND (SP): Same as 74 - 80.
Mud Rotary Cuttings collected at 5-foot intervals 83 - 120 feet			83 - 106	SAND (SP): Same as 74 - 80; trace gravel pieces to 1/4-inch diameter, angular. At 87 to 95 feet, occasional silty interbeds.
			106 - 120	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, to olive-gray, 5Y 5/2, cemented to very dense, fine- to medium-grained, moderately sorted; fine-grained component is cemented, medium-grained component is very dense; fossils comprised of fragmented bivalve and mussel shells, moderately weathered, some up to 1/2-inch diameter. At 115 feet, less cementation, increase in shell content. At 118 feet, some silty sand.
Pitcher Core Sampler 120 - 123.0 feet	R = 2.8/3.0		120 - 122	SAND (SP): Pale olive, 5Y 6/3, very dense, medium-grained, well sorted; trace coarse grains and trace shells.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Barrel Sample 120 - 123.0 feet	R = 2.8/3.0		122 - 122.8	SANDY SILT (ML) AND CLAYEY SILT (ML): Black, 5Y 2.5/1 to 2.5Y 2/0, slightly moist to moist, very firm to stiff, slightly to moderately plastic; sand is fine-grained.
Mud Rotary Cuttings collected at 5-foot intervals 123 - 145 feet	NA	NA	123 - 125	SANDY SILT (ML) AND CLAYEY SILT (ML): Same as 122 - 122.8 except grades downward to predominantly sandy silt.
			125 - 129	SANDY SILT (ML) AND SILTY SAND (SM) INTERBEDS: Very dark gray, 5Y 3/1, firm, non- to slightly plastic, sand dense, medium- to fine-grained, poorly sorted, some shell fragments, comprised of bivalves and gastropods.
			129 - 141	SAND (SP) AND SILTY SAND (SM): Greenish bluish gray, medium to very dense, fine- to medium-grained, moderately sorted to well sorted; some silt interbeds; some cementation and trace shell fragments, very stiff to hard.
			141 - 145	SILT (ML): Bluish-gray, very firm to stiff; sandy silt zones, fine-grained; clayey silt zones, slightly plastic, trace mussel shell fragments, very weathered.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 145 - 148 feet	R = 2.8/3.0		145 - 147.5	SILT (ML): Very dark gray, 5Y 3/1, slightly moist, very firm to stiff, nonplastic, some sandy silt zones and some shells, fragmented, moderately weathered, white bivalves.
			147.5 - 147.8	SAND (SP): Bluish gray to olive, 5Y 5/4, wet, very dense, fine- to medium-grained, moderately sorted.
Mud Rotary Cuttings collected at 5-foot intervals 148 - 165 feet	NA	NA	148 - 150	SAND (SP): Same as 147.5 - 147.8.
			150 - 165	SAND (SP): Olive-gray, 5Y 4/2, to dark gray, 5Y 4/1, very dense, fine-grained, well sorted; trace silt interbeds; trace mussel shells, fragmented, moderately weathered. At 155 feet, very dark gray, 5Y 3/1, trace mussel and other bivalve shell fragments, moderately weathered. At 160 feet, no shells and no silt; trace coarse sand grains comprised of white quartz, angular to subangular.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 165 - 168 feet	R = 1.6/3.0		165 - 166.6	SAND (SP): Very dark gray, 5Y 3/1, very dense, fine-grained, well sorted; trace coarse white quartz grains.
			166.8 - 168	SAND (SP): Based on geophysical logs.
Mud Rotary Cuttings collected at 5-foot intervals 168 - 217 feet	NA	NA	168 - 180.5	SAND (SP): Dark gray, 2.5Y 4/0, wet, medium dense, fine-grained, well sorted, subrounded. At 170 feet, some cemented sand. At 175 feet, dense, some coarse-grained sand, subrounded; trace shells, some cemented sand and trace wood particles up to 1/4 inch long.
			180.5 - 190	SILTY SAND (SM): Dark gray, 2.5Y 4/0, medium dense, fine-grained, well sorted; some shells comprised of bivalves, predominantly orange brown in color.
			190 - 196.5	SILTY SAND (SM): Very dark gray, 2.5Y 3/0, very moist, very dense, fine- to medium-grained, poorly sorted, subangular to sub-rounded; some bivalve shells and trace gastro-pod shells.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 9

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot 168 - 217 feet	NA	NA	196.5 - 203	FOSSILIFEROUS SAND (SP): Gray, 2.5Y 5/0, wet, dense, fine- to medium-grained, moderately well sorted, subrounded; fossils comprised of predominantly gastropods with some bivalves, mostly tan, unweathered; trace wood particles.
			203 - 217	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT (ML): Dark gray, 2.5Y 4/0, very moist, dense, fine-grained, well sorted, subrounded; some gastropod and bivalve shells; some sandy silt, gray, 2.5Y 5/0, moist, firm to stiff, non-plastic; trace wood particles to 1/2-inch long. At 210 feet, increase in sandy silt content.
Pitcher Core Sampler 217 - 220 feet	R = 2.2/3.0		217 - 219.2	SILT (ML): Dark gray, 2.5Y 4/0, very firm to stiff, nonplastic; some sand, fine-grained.
Mud Rotary Cuttings collected at 5-foot intervals 220 - 245.5 feet	NA	NA	220 - 225	SANDY CLAYEY SILT (ML): Dark gray, 2.5Y 4/0, moist, firm, plastic; some silty clayey sand interbeds, dark gray, 2.5Y 4/0, moist, dense, fine-grained, well sorted, subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-6 (continued)
LITHOLOGIC LOG FOR EXPLORATORY BORING EB-13
Page 10

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 220 - 245.5 feet	NA	NA	225 - 230	SILTY SAND (SM): Gray, 5Y 5/1, wet, dense, fine- to medium-grained, poorly sorted, sub rounded.
			230 - 244	SAND (SW): Light olive-gray, 5Y 6/2, wet, dense, fine- to coarse-grained, poorly sorted, subrounded.
				At 235 feet, increase in coarse grain content.
				At 240 feet, some silt.
			244 - 245.5	CLAYEY SILT (ML): Dark gray, 2.5Y 4/0, firm to stiff, plastic; trace sand.

TOTAL DEPTH OF BOREHOLE: 245.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7

LITHOLOGIC LOG FOR MONITOR WELL MW-16

Dates: March 31, 1990
Weather: Sunny, 75°
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: Container corporation property, west side of property

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hand Auger 0 - 3 feet	R = 3.0/3.0		0 - 2	SANDY CLAY (CL): Olive-brown, 2.5Y 4/4, damp, soft, moderately plastic; fill material.
			2 - 3	SILTY CLAY (CL): Dark grayish brown, 2.5Y 4/2, damp, firm, plastic; fill material.
Hollow Auger Continuous core 3 - 8 feet	R = 4.3/5.0	3-4/1	3 - 4	SANDY SILT (ML): Dark grayish brown, 2.5Y 4/2, damp, soft; fill material.
		5-6/0.2	4 - 7.3	SILTY CLAY (CL): Very dark gray, 5Y 3/1, damp, firm, plastic.
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0	8-9/0.4	8 - 9.8	SANDY SILTY CLAY (CL): Very dark grayish brown, 2.5Y 3/2, damp, firm, moderately plastic.
		10-11/0.2	9.8 - 11.8	SANDY CLAY (CL): Dark yellowish brown, 10YR 4/4, damp, slightly to moderately plastic; very sandy, sand is fine- to medium-grained.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0		11.8 - 13	SANDY SILTY CLAY (CL): Olive-gray, 5Y 5/2, damp, stiff, moderately plastic; sand is fine-grained.
Hollow Auger Continuous Core 13 - 18 feet	R = 4.4/5.0	13-14/0	13 - 15	SILTY CLAY (CL): Same as 11.8 - 13.0 except without sand.
		15-16/0	15 - 17.4	SILTY SAND (SM): Dark yellowish brown, 10YR 4/6, damp, loose to slightly dense, fine-grained; trace mica.
Hollow Auger Continuous Core 18 - 23 feet	R = 2.2/5.0	18-19/0	18 - 20.2	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, damp, slightly dense, fine-grained, moderately sorted, subangular.
Hollow Auger Continuous Core 23 - 28 feet	R = 2.5/5.0	23-24/0 25-26/0	23 - 25.5	SILTY SAND (SM): Same as 18 - 20.2, some color variation, pale olive, 5Y 6/4.
Hollow Auger Continuous Core 28 - 33 feet	R = 2.8/5.0	28-29/0.6	28 - 30.8	SILTY SAND (SM): Same as 23 - 25.5.
		30-31/0.8		At 30.5 feet, clayey silty sand, dark yellowish brown, 10YR 4/4, damp, dense, fine-grained, poorly sorted, subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 33 - 38 feet	R = 3.2/5.0	33-34/0.6	33 - 34	FOSSILIFEROUS SILTY SAND (SP): Pale yellow, 2.5Y 7/4, damp, loose, poorly sorted, subangular; shell fragments up to 3/4-inch diameter; some cementation.
			34 - 35.1	SAND (SP): Pale olive, 2.5Y 6/4, damp, medium dense, moderately sorted, subangular; some shell fragments up to 3/4-inch diameter.
		35-36/0.6	35.1 - 36.2	CLAYEY SILT (ML): Light olive-gray, 5Y 6/2, damp, stiff, slightly plastic. At 35.5 feet, 1-inch diameter sand nodule, loose, fine- to medium-grained. At 36.0 feet, rust colored oxidation.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.3/5.0	38-39/0.4	38 - 40.2	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, damp, medium dense, moderately sorted; some pale olive color variation; trace mica. At 40 feet, clayey silt layer, light olive-gray and light olive-brown, damp, stiff, slightly plastic.
		40-41/1.0	40.2 - 41.3	SILT (ML): Olive, 5Y 5/3, damp, firm; trace mica; laminated with thin, light brown layers.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 38 - 43 feet				SILT (ML): (continued) At 41 feet, silty clay, light olive-gray and light olive-brown, damp, stiff, moderately plastic; leaf-like black inclusions.
Hollow Auger Continuous Core 43 - 48 feet	R = 3.2/5.0	43-44/1.0	43 - 43.5	CLAYEY SILT/SILTY CLAY (ML/CL): Light olive-gray, 5Y 6/2, damp, hard, moderately plastic; rust colored oxidation; micaceous.
		45-46/1.2	43.5 - 46.2	SAND (SP): Pale olive, 5Y 6/3, damp, loose to medium dense, fine-grained, moderately sorted; micaceous; laminated with thin bands, olive-gray, 5Y 5/3. At 44.9 feet, clayey silt lens, olive, 5Y 5/4, damp, stiff, slightly plastic; micaceous.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.2/5.0	48-49/0.6	48 - 51.2	SAND (SP): Pale olive, 5Y 6/3, damp, loose, fine-grained, moderately sorted, subangular; micaceous. At 49.1 - 49.6 feet, sandy clayey silt, olive, 5Y 4/4, damp, stiff, slightly plastic; some sand layers, same as 48 - 51.2.
		50-51/1.4		At 50.9 feet, thin black laminations.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 53 - 58 feet	R = 3.3/5.0	53-54/1.0	53 - 54.9	SAND (SP): Same as 48 - 51.2.
			54.9 - 55.5	SANDY SILT (ML): Olive, 5Y 4/3, damp, stiff, micaceous.
		55-56/1.2	55.5 - 55.8	SILTY CLAY (CL): Olive, 5Y 4/3, damp, stiff, moderately plastic to plastic, micaceous.
			55.8 - 56.3	SAND (SP): Same as 48 - 51.2 except coarser grained.
Hollow Auger Continuous Core 58 - 63 feet	R = 3.6/5.0	58-59/0.4	58 - 58.7	SAND (SP): Same as 48 - 51.2.
			58.7 - 59.1	SILTY SAND (SM): Olive, 5Y 4/3, damp, medium dense, fine-grained, micaceous.
				At 59.5 feet, grades to clayey silt, slightly plastic, micaceous.
		60-61/0.8	59.1 - 61.6	SAND (SP): Olive, 5Y 5/3, damp, loose, fine-grained, well sorted, subangular, micaceous.
Hollow Auger Continuous Core 63 - 68 feet	R = 2.6/5.0	63-64/1.4	63 - 65.6	SAND (SP): Olive, 5Y 5/3, wet, loose, fine-grained, moderately sorted, subangular, micaceous.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 63 - 68 feet	R = 2.6/5.0		63 - 65.6	SAND (SP): (continued) At 63 - 63.2 feet, clayey silt, olive, 5Y 5/4, wet, hard, slightly plastic, micaceous.
		64.5-65.5/2.4		At 64.6 - 64.8 feet, clayey silt, same as 63.0 - 63.2. At 64.2 feet, sands grades to very fine; some silt. At 65.5 feet, clayey silt, same as 63.0 - 63.2.
Hollow Auger Continuous Core 68 - 73 feet	R = 1.8/5.0	68-69/2.0	68 - 68.6	SILTY CLAY (CL): Olive, 5Y 5/4, wet, hard, moderately plastic.
			68.6 - 69.8	SILTY SAND (SM): Olive-gray, 5Y 4/2, wet, medium dense, moderately sorted, subangular; micaceous. At 69.4 feet, silty clay, same as 68 - 68.6.
Hollow Auger Continuous Core 73 - 78 feet	R = 3.6/5.0	73-74/1.6	73 - 74.6	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, wet, loose, fine-grained, poorly sorted, subangular; some silt; shell fragments up to 1/2-inch diameter; some silty clay interbeds.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-7 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-16
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 73 - 78 feet	R = 3.6/5.0	75-76/3.0	74.6 - 76.6	SAND (SP): Same as 73 - 74.6, without shells, moderately sorted; no silt. At 75.7 feet, olive, 5Y 4/3, sand grades finer.

TOTAL DEPTH OF BOREHOLE: 78 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8

LITHOLOGIC LOG FOR MONITOR WELL MW-17

Dates: April 2, 1990
Weather: Slightly overcast, warm, breezy
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: Intersection of Denker and Del Ammo

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hand Auger Continuous Core 0 - 3 feet	R = 3.0/3.0		0 - 3	SILTY CLAY (CL): Very dark grayish brown, 10YR 3/2, damp, stiff, plastic.
Hollow Auger Continuous Core 3 - 8 feet	R = 5.0/5.0	3-4/0 6-7/0	3 - 8	CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/4, damp, stiff, slightly plastic; trace sand.
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0	8-9/0 10-11/0	8 - 13	CLAYEY SILT (ML): Same as 3 - 8 feet.
Hollow Auger Continuous Core 13 - 18 feet	R = 4.4/5.0	13-14/0 15-16/0	13 - 17.4	CLAYEY SILT (ML): Brown, 10YR 5/3, damp, stiff, slightly plastic.
Hollow Auger Continuous Core 18 - 23 feet	R = 2.6/5.0	18-19/0 20-20.5/0	18 - 20.6	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, damp, slightly to moderately dense, fine-grained, poorly sorted, subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-17
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 23 - 28 feet	R = 2.9/5.0	23-24/0 25-26/0	23 - 25.9	SAND (SP): Light olive-brown, 2.5Y 5/6, damp, loose, fine-grained, moderately sorted, sub-rounded; no silt. At 24.1 feet, light yellowish brown, 2.5Y 6/4.
Hollow Auger Continuous Core 28 - 33 feet	R = 3.4/5.0	28-29/0 30-31/0	28 - 31.4	SAND (SP): Light olive-brown, 2.5Y 5/6, damp, loose, fine-grained, moderately sorted; some rust colored laminations.
Hollow Auger Continuous Core 33 - 38 feet	R = 3.4/5.0	33-34/0	33 - 34.7	SAND (SP): Pale olive, 5Y 6/3, damp, loose, fine-grained; some cemented shell fragments throughout up to 1-inch diameter.
		33-36/0	34.7 - 36.4	INTERBEDDED CLAYEY SILT, SILTY CLAY AND SILTY SAND (ML/CL/SM): Clayey silt and silty clay are light olive-brown, 2.5Y 5/4, damp, stiff to hard, moderately plastic to plastic; sand is light yellowish brown, 2.5Y 6/4, damp, loose, fine-grained, poorly sorted.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.8/5.0	38-39/0	38 - 39.6	SAND (SP): Light olive-brown, 2.5Y 5/6, damp, slightly dense, fine-grained, poorly sorted.
			39.6 - 40.3	CLAYEY/SILTY SAND (SC/SM): Light olive-gray, 5Y 6/2, damp, medium dense, fine-grained, poorly sorted.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-17
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 38 - 43 feet	R = 3.8/5.0			CLAYEY/SILTY SAND (SC/SM): (continued) At 40 feet, sand, light gray, 5Y 7/1, damp, loose, moderately sorted.
		40-41/0	40.3 - 41.8	CLAYEY SILT (ML): Light olive-gray, 5Y 6/2, damp, stiff, slightly to moderately plastic; some rust colored oxidation bands.
Hollow Auger Continuous Core 43 - 48 feet	R = 3.5/5.0	43-44/0	43 - 43.5	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, damp, slightly to moderately dense, fine-43 - grained.
			43.5 - 44.5	SAND (SP): Pale olive, 5Y 6/3, damp, loose, fine-grained, moderately sorted.
		45-46/0	44.5 - 46.5	INTERBEDDED SILTY CLAY AND SILTY SAND (CL/SM): Clay is light olive-brown, 2.5Y 5/4, damp, stiff, moderately plastic; silty sand is same as 43 - 43.5. At 45.5 feet, silty clay.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.4/5.0	48-49/0 50-51/0	48 - 51.4	SAND (SP): Pale olive, 5Y 6/3, damp, loose, fine-grained, moderately sorted, subangular.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-17
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 48 - 53 feet	R = 3.4/5.0			SAND (SP): (continued) At 49.4 - 49.8 feet, clayey silt lens, olive, 5Y 4/4, damp, stiff, slightly plastic; trace fine-grained sand.
Hollow Auger Continuous Core 53 - 58 feet	R = 3.2/5.0	53-54/0	53 - 54.8	SAND (SP): Olive, 5Y 5/4, damp, loose, fine-grained, moderately sorted, subangular. At 53.9 - 54 feet, silty clay lens, olive, 5Y 5/4, damp, hard, moderately plastic.
		55-56/0	54.8 - 55.9	SAND (SP): Pale olive, 5Y 6/3, damp, loose, fine-grained, moderately sorted, subangular.
			55.9 - 56.2	SAND (SP): Same as 53 - 54.8.
Hollow Auger Continuous Core 58 - 63 feet	R = 3.7/5.0	58-59/0 60-61/2	58 - 58.5	SAND (SP): Same as 53 - 54.8.
			58.5 - 61.7	INTERBEDDED SILTY CLAY AND SANDY SILT (CL/ML): Colors of both clay and silt are olive, 5Y 4/4, and olive, 5Y 3/4; clay is damp, hard, moderately plastic; some sand; silt is damp, firm; trace sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-17
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 58 - 63 feet	R = 3.7/5.0			INTERBEDDED SILTY CLAY AND SANDY SILT (CL/ML): (continued) At 60.8 - 61.2 feet, sand is pale olive, 5Y 6/3, damp, loose, fine-grained, moderately sorted, subangular.
Hollow Auger Continuous Core 63 - 68 feet	R = 3.2/5.0	63-64/3	63 - 63.6	CLAYEY SILT (ML): Olive, 5Y 5/3, damp, stiff, slightly to moderately plastic; trace sand.
		64-65/14 65-66/3	63.6 - 66.2	SAND (SP): Pale yellow, 5Y 7/3, damp, loose, fine-grained, moderately sorted, subrounded; some medium-grained sand. At 63.6 - 64.2 feet, sand is stained orange oxidation color.
Hollow Auger Continuous Core 68 - 73 feet	R = 2.8/5.0	68-69/9.2 70-71/2.4	68 - 70.8	SAND (SP): Pale olive, 5Y 6/3, wet, loose, moderately sorted; trace shell fragments up to 1/4-inch diameter; some black organic nodules up to 1/2-inch diameter; trace mica. At 70.6 feet, some shell fragments up to 1/4-inch diameter.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-8 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-17
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 73 - 78 feet	R = 1.3/5.0	74/0	73 - 74.3	SILTY SAND (SM): Pale olive, 5Y 6/3, wet, loose, moderately sorted; some shell fragments up to 1/4-inch diameter; some siltier laminations; some rust colored laminations; trace mica.
Hollow Auger Continuous Core 78 - 83 feet	R = 2.2/5.0	78-79/0 80/0	78 - 80.2	SAND (SP): Olive, 5Y 5/3, wet, slightly to moderately dense, fine-grained, poorly sorted, subangular; some shell fragments up to 1/4-inch diameter; trace silt.

TOTAL DEPTH OF BOREHOLE: 83 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9

LITHOLOGIC LOG FOR MONITOR WELL MW-18

Dates: March 29, 1990
Weather: Overcast and cool; westerly breeze
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: McDonnell Douglas, immediately south of Building No. 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hand Auger 0 - 3 feet	R = 3.0/3.0		0 - 3	SILTY CLAY (CL): Dark gray, 5Y 4/2, moist, firm, plastic.
Hollow Auger Continuous Core 3 - 8 feet	R = 3.8/5.0		3 - 5	SANDY SILT (ML): Brown, 7.5YR 4/2, dry, soft; some small rocks up to 1/2-inch diameter.
			5 - 6.8	SILTY CLAY/CLAYEY SILT (CL/ML): Yellowish brown, 10YR 5/4, damp, hard, plastic.
				At 5.0 - 5.6 feet, very dark gray, 10YR 3/1.
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0		8 - 13	SANDY SILT (ML): Yellowish brown, 10YR 5/4, damp, stiff, slightly plastic; trace clay; trace mica.
Hollow Auger Continuous Core 13 - 18 feet	R = 3.9/5.0		13 - 16.9	CLAYEY SILT (ML): Brown, 10YR 5/3, damp, firm, slightly plastic; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-18
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 18 - 23 feet	R = 3.3/5.0		18 - 21.3	CLAYEY SILT (ML): Olive-brown, 2.5Y 4/4, damp, stiff, slightly plastic.
				At 21 feet, grades to silty clay, hard; some white, cemented bands.
Hollow Auger Continuous Core 23 - 28 feet	R = 3.7/5.0		23 - 24.8	CLAYEY SILT (ML): Same as 18 - 21.
			24.8 - 26.7	SANDY SILT (ML): Light olive-brown, 2.5Y 5/4, damp, firm; infrequent black organic inclusions, 2-mm diameter.
Hollow Auger Continuous Core 28 - 33 feet	R = 2.8/5.0		28 - 30.8	SAND (SP): Light olive-brown, 2.5Y 5/6, damp, slightly dense, fine-grained.
				At 29 - 30 feet, mottled color change.
				At 30 feet, light yellowish brown, 2.5Y 6/4.
Hollow Auger Continuous Core 33 - 38 feet	R = 3.0/5.0		33 - 36	SAND (SP): Light olive-brown, 2.5Y 5/4, damp, slightly dense, fine-grained; trace mica.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.4/5.0		38 - 41.4	SAND (SP): Same as 33 - 36.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-18
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 43 - 48 feet	R = 3.7/5.0		43 - 44.6	SAND (SP): Same as 33 - 36, grading coarser, though still fine-grained; some shell fragments to 1/2-inch diameter.
			44.6 - 45.1	SAND (SP): Light yellowish brown, 10YR 6/4, damp, loose, fine-grained, trace medium-grained; increase in shell fragment content, some cemented shell fragment nodules.
			45.1 - 46.7	SAND (SP): Olive, 5Y 5/3, damp, firm, fine-grained; laminated orange oxidation layers and thin clayey sand layers.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.1/5.0		48 - 48.9	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, damp, firm, fine-grained; trace mica.
				At 48.4 - 48.9 feet, rust colored oxidation.
			48.9 - 51.1	SAND (SP): Pale olive, 5Y 6/3, damp, firm, fine-grained; trace mica.
				At 51 feet, silt, olive, 5Y 5/3, damp, stiff.
Hollow Auger Continuous Core 53 - 58 feet	R = 3.7/5.0		53 - 54.5	CLAYEY SILT (ML): Olive, 5Y 5/4, damp, firm, slightly plastic; trace mica.
				At 53.2 feet, silt, nonplastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-18
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 53 - 58 feet	R - 3.7/5.0		54.5 - 56.7	SAND (SP): Light olive-gray alternating with light olive-brown, damp, slightly dense, very fine-grained; trace mica; infrequent clayey silt bands, 5 mm thick.
Hollow Auger Continuous Core 58 - 63 feet	R = 3.4/5.0		58 - 61.4	SAND (SP): Olive, 5Y 5/3, damp, slightly dense, fine-grained; laminated with very thin black and rust colored hues. At 59.4 feet, silty clay layer, damp, stiff, slightly plastic, 3/4 inch thick.
Hollow Auger Continuous Core 63 - 68 feet	R = 3.6/5.0		63 - 66.6	SAND (SP): Same as 58 - 61.4. At 65.2 feet, clayey silt layer, light olive-brown, 2.5Y 5/4, damp, stiff, slightly plastic, 3/4 inch thick. At 66.5 feet, clayey silt laminations, same as 65.2, 2 mm thick.
Hollow Auger Continuous Core 68 - 73 feet	R = 3.4/5.0		68 - 68.7	SAND (SP): Olive, 5Y 5/4, damp, loose, fine-grained; trace mica.
			68.7 - 68.9	CLAYEY SANDY SILT (ML): Olive, 5Y 4/4, damp, stiff, slightly plastic; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-18
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous core 68 - 73 feet	R = 3.4/5.0		68.9 - 71.4	SAND (SP): Olive, 5Y 4/4, damp, slightly dense, fine-grained; laminated throughout with thin grayish brown and rust colored lines.
Hollow Auger Continuous core 73 - 78 feet	R = 2.7/5.0		73 - 73.9	SAND (SP): Same as 68.9 - 71 except without laminations, wet; micaceous.
			73.9 - 74.9	SAND (SP): Same as 68.9 - 71 except with laminations.
			74.9 - 75.7	SAND (SP): Pale olive, 5Y 6/4, wet, slightly dense, fine-grained; some fine- to medium-grained layers, 1/2 inch thick; trace mica. At 75.2, sandy silt layer, 3/4 inch thick; some white cementation.
Hollow Auger Continuous Core 78 - 83 feet	R = 3.4/5.0		78 - 81.4	SAND (SP): Olive, 5Y 5/3, wet, loose, fine-grained; trace mica. At 80 feet, some shell fragments up to 1/2-inch diameter.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-9 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-18
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Auger 78 - 83 feet	R = 3.4/5.0		78 - 81.4	SAND (SP): (continued) At 81.1 feet, light gray, 5Y 7/2, sand grades coarser; very thin white, calcarious laminations.

TOTAL DEPTH OF BOREHOLE: 83 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10

LITHOLOGIC LOG FOR MONITOR WELL MW-19

Dates: March 30, 1990
Weather: Cool, overcast, slight to moderate breezes from south and west
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: East side of McDonnell Douglas Company, between Francisco and Knox Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hand Auger 0 - 3 feet			0 - 3	GRAVELLY SAND (SW): Olive-gray, 5Y 5/2, dry, loose, fine- to coarse-grained, poorly sorted (fill).
Hollow Auger Continuous Core 3 - 8 feet	R = 4.0/5.0		3 - 4.5	GRAVELLY SAND (SW): Same as 0 - 3.
			4.5 - 6	CLAYEY SILT (ML): Dark yellowish brown, 10YR 4/6, slightly moist, stiff, nonplastic to slightly plastic.
			6 - 7	SILTY CLAY (CL): Brown, 10YR 5/3, slightly moist, stiff, moderately plastic; with abundant black inclusions.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0		8 - 8.5	SILTY CLAY (CL): Same as 6 - 7.
			8.5 - 11	CLAYEY SILT (ML): Olive, 5Y 4/4, damp, very stiff to slightly cemented, nonplastic; with purple colored staining and relict rootlets, with some rust staining; with fine clay lenses, 0.01 to 0.02 feet thick.
			11 - 13	SANDY SILT (ML): Olive, 5Y 4/4, slightly moist, stiff, nonplastic; sand is fine-grained with rust staining.
Hollow Auger Continuous Core 13 - 18 feet	R = 5.0/5.0		13 - 14	SANDY SILT (ML): Same as 11 - 13.
			14 - 18	CLAYEY SILT (ML/MH): Olive, 5Y 4/4, slightly moist, very firm to stiff, slightly plastic; with trace sand.
				At 14 feet, cemented zone, 0.2 feet thick; with abundant black to purple inclusions, organic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 18 - 23 feet	R = 3.1/5.0		18 - 20	CLAYEY SILT (ML): Same as 14 - 18.
			20 - 21.1	SILTY CLAY (CL): Olive, 5Y 4/3, slightly moist, very stiff, moderately plastic; with abundant rust and black colored inclusions; with some dry white inclusions.
Hollow Auger Continuous Core 23 - 28 feet	R = 3.9/5.0		23 - 25	SILTY CLAY (CL): Same as 20 - 21.1 feet. At 24.9 feet, cemented nodules.
			25 - 26.9	SANDY SILT (ML): Olive, 5Y 5/4, dry to slightly moist, very firm, nonplastic; sand is fine-grained. At 26 feet, cemented zone, 0.2 feet thick.
Hollow Auger Continuous Core 28 - 33 feet	R = 3.6/5.0		28 - 31.6	SANDY SILT (ML): Same as 25 - 26.9, with some clay, trace plastic. At 31 feet, wet zone; some cemented nodules.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 33 - 38 feet	R = 3.3/5.0		33 - 34.5	SILT (ML): Olive-gray, 5Y 4/2, damp, very firm to stiff, nonplastic, friable.
			34.5 - 36.3	SANDY SILT (ML): Olive, 5Y 4/4, dry to slightly moist, very firm, nonplastic; sand is fine-grained. At 35 feet, cemented interval, 0.1 feet thick. At 35.5 feet, sand lens, olive-gray, 5Y 5/2, dense, fine-grained, well sorted, 0.1 feet thick.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.5/5.0		38 - 39.5	SILTY CLAY (CL): Olive, 5Y 4/3, slightly moist, slightly stiff, moderately plastic; with some rust staining.
			39.5 - 41.5	SAND (SP): Light olive-gray, 5Y 6/2, slightly moist, slightly dense, fine-grained, well sorted, subangular to subrounded; with abundant rust staining; trace silt. At 41 feet, grades olive-yellow, 5Y 6/6.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 43 - 48 feet	R = 3.9/5.0		43 - 46.9	FOSSILIFEROUS SAND (SW): Olive-yellow, 5Y 6/8, to pale olive, 5Y 6/4, slightly moist, slightly cemented to well cemented, fine- to medium-grained,poorly sorted; angular to subangular; fossils comprised of bivalves; fragmented up to 1/2-inch diameter; larger fragments originated from very large shells. At 46.5 feet, sandy silt lenses, 0.2 feet thick.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.3/5.0		48 - 48.5	SAND (SW): Olive-yellow, 5Y 6/8, to pale olive, 5Y 6/4, slightly moist, slightly cemented to well cemented, fine- to medium-grained, poorly sorted; angular to subangular. At 48.5 feet, silt lens, olive, 5Y 5/4, slightly cemented.
			48.5 - 51.3	SAND (SP): Pale olive, 5Y 6/3, and light olive-gray, 5Y 6/2; with interbeds of olive-yellow, 5Y 6/6, slightly moist, slightly dense, fine-grained, well sorted; less coarse with depth. At 51 feet, clay lens, 0.1 feet thick.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 48 - 53 feet				SAND (SP): (continued) At 51.2 feet, rust colored.
Hollow Auger Continuous Core 53 - 58 feet	R = 3.4/5.0		53 - 55	SAND (SP): Same as 48.5 - 51.3.
			55 - 56.4	CLAYEY SILT (ML): Multibanded olive, 5Y 5/4, yellow, 5Y 7/8, and pale olive, 5Y 6/3, damp, very firm, slightly plastic.
Hollow Auger Continuous Core 58 - 63 feet	R = 2.6/5.0		58 - 58.5	SILTY SAND (SM): Olive, 5Y 4/3, very moist, very dense, fine-grained, well sorted; trace mica flakes.
			58.5 - 60.5	SAND (SP): Pale olive, 5Y 6/3, moist, moderately dense, fine-grained, well sorted; with gray colored laminations, fine; some rust colored staining; trace silt. At 60 feet, silt lens, 0.04 feet thick. At 60.5 feet, silty sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 63 - 68 feet	R = 3.6/5.0		63 - 64.3	SILTY SAND (SM): Olive, 5Y 4/3, moist, very dense, fine-grained, well sorted, subangular.
				At 63 feet, silt lens, 0.02 feet thick.
			64.3 - 66	INTERBEDDED SAND (SP) AND SILT (ML): Gray, 5Y 5/1, slightly moist, moderately dense, fine-grained, well sorted, subangular; silt is olive, 5Y 5/3, very moist, very firm, slightly plastic.
			66 - 66.6	SAND (SP): Olive-gray, 5Y 5/2, wet, moderately dense, medium-grained, well sorted, subangular to angular; trace mica flakes.
Hollow Auger Continuous Core 68 - 73 feet	R = 2.7/5.0		68 - 69.5	SAND (SP): Same as 66 - 66.6.
				At 68.6 feet, silty clay zone, 0.2 feet thick.
			69.5 - 70.7	SILT (ML): Olive, 5Y 4/4, very moist, stiff, slightly nonplastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-10 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-19
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 73 - 78 feet	R = 2.6/5.0		73 - 75.6	SAND (SP) WITH SILT (ML) AND SANDY SILT (ML) INTERBEDS: Sand same as 68 - 69.5; silt same as 69.5 - 70.7; sandy silt is olive, 5Y 4/3, firm, fine-grained; interbeds 0.01 to 0.3 feet thick.

TOTAL DEPTH OF BOREHOLE: 78 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11

LITHOLOGIC LOG FOR MONITOR WELL MW-20

Dates: April 3-4, 1990
Weather: Sunny, very hazy, warm; some winds from west in afternoon, April 3; Light to moderate rain, April 4
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: North side of Coca Cola property, west of Pacific Gateway

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hand Auger 0 - 3 feet			0 - 3	SANDY SILT (ML): Olive-brown, 2.5Y 4/4, dry, soft, nonplastic; loose; some gravel to 1-inch diameter (fill).
Hollow Auger Continuous Core 3 - 8 feet	R = 4.2/5.0		3 - 4	SANDY SILT (ML): Same as 0 - 3.
			4 - 7.2	CLAYEY SILT (ML): Olive-brown, 2.5Y 5/4, slightly moist, firm, slightly plastic, with black granular inclusions.
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0		8 - 11	SANDY SILT (ML): Olive-brown, 2.5Y 5/4, dry, firm; sand is fine-grained, well sorted.
			11 - 12.5	SILTY SAND (SM): Olive-brown, 2.5Y 5/4, dry, slightly dense, fine-grained, well sorted, subangular to subrounded.
				At 11.5 feet, cemented lens, 0.2 feet thick.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 8 - 13 feet			12.5 - 13	CLAYEY SANDY SILT (ML): Olive, 5Y 4/3, slightly moist, very stiff to slightly cemented, slightly plastic; sand is fine-grained.
Hollow Auger Continuous Core 13 - 18 feet	R = 3.6/5.0		13 - 15.5	CLAYEY SANDY SILT (ML): Same as 12.5 - 13 except no cementation.
				At 15 feet, cemented lens, white to olive, 5Y 4/3, dry, 0.3 feet thick.
			15.5 - 16.6	SILTY CLAY (CL): Olive, 5Y 5/4, damp, very stiff, slightly plastic; sand is fine-grained.
Hollow Auger Continuous Core 18 - 23 feet	R = 4.3/5.0		18 - 20	SANDY SILTY CLAY (CL): Olive, 5Y 5/4, damp, very stiff, slightly plastic; sand is fine-grained.
			20 - 21	SILTY CLAY (CL): Same as 18 - 20 except with no sand.
			21 - 22.3	SILTY SAND (SM): Olive, 5Y 5/4, to light olive-brown, 2.5Y 5/6, slightly moist, moderately dense, fine-grained, well sorted; some sandy silt zones.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 23 - 28 feet	R = 3.0/5.0		23 - 24.5	SILTY SAND (SM): Same as 21 - 22.3.
			24.5 - 26	SAND (SP): Gray, 2.5Y 6/0, interbedded with dark gray, 5Y 4/1, slightly moist, loose; dark gray sand is fine, gray sand is slightly coarser; well sorted; some silt.
Hollow Auger Continuous Core 28 - 33 feet	R = 3.2/5.0		28 - 29.5	SAND (SP): Gray, 2.5Y 6/1, slightly moist, slightly dense, fine-grained, well sorted, subangular; same as gray sand in 24.5 - 26.
			29.5 - 31	CLAYEY SILT (ML): Dark gray, 5Y 4/1, slightly moist, very stiff, slightly plastic.
			31 - 31.2	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, slightly moist, moderately dense, fine-grained, well sorted.
Hollow Auger Continuous Core 33 - 38 feet	R = 3.9/5.0		33 - 34	SAND (SP): Olive, 5Y 4/4, dry, loose, fine-grained, well sorted, subangular.
				At 33.8 feet, olive-gray lens, 5Y 5/2, 0.3 feet thick.
			34 - 35.5	CLAYEY SILT (ML): Olive, 5Y 5/3, dry, very firm, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 33 - 38 feet	R = 3.9/5.0		35.5 - 36.9	SILTY SAND (SM): Olive-gray, 5Y 5/2, slightly moist, slightly dense, fine-grained, well sorted, with abundant orange colored oxidation staining. At 38 feet, fossiliferous zone 0.2 feet thick; white bivalve shells, fragmented, well weathered.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.9/5.0		38 - 41.5	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, slightly moist, slightly dense, fine-grained, well sorted. At 39 feet, fossiliferous lens, 0.2 feet thick, oyster shells, slightly weathered, slightly fragmented. At 40.5 feet, fossiliferous silty sand, slightly cemented, comprised of fragmented, well weathered oyster shells. At 41.5 feet, black, granular inclusion, organic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 38 - 43 feet	R = 3.9/5.0		41.5 - 41.9	SILTY CLAY (CL): Olive, 5Y 5/3, slightly moist, very stiff; with abundant orange colored relict rootlets.
Hollow Auger Continuous Core 43 - 48 feet	R = 3.5/5.0		43 - 44	SILTY CLAY (CL): Same as 41.5 - 41.9.
			44 - 46.5	SAND (SP): Olive, 5Y 5/4, dry to slightly moist, slightly dense, fine-grained, moderately sorted; trace to some silt. At 45.5 feet, pale olive, 5Y 6/4, slightly coarser-grained, well sorted, no silt, with abundant fine multibanded shades of olive.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.5/5.0		48 - 51.4	SAND (SP): Pale olive, 5Y 6/4, slightly moist, slightly dense, fine-grained, well sorted; trace discontinuous silt lenses, 0.01 feet thick.
Hollow Auger Continuous Core 53 - 58 feet	R = 3.2/5.0		53 - 56.2	SAND (SP): Pale olive, 5Y 6/4, damp, slightly dense, fine-grained, well sorted; some oxidized, rust colored fine laminations and lenses; trace mica flakes.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 58 - 63 feet	R = 3.4/5.0		58 - 60.5	SILTY SAND (SM) AND SAND (SP) INTERBEDS: Olive-gray, 5Y 4/2, slightly moist, moderately dense, fine-grained; with abundant rust oxidation staining.
				At 60.3 feet, silt lens, 0.2 feet thick.
			60.5 - 61.4	SAND (SP): Olive-gray, 5Y 4/2, wet to very moist, slightly dense, fine-grained, well sorted; trace mica flakes.
Hollow Auger Continuous Core 63 - 68 feet	R = 3.4/5.0		63 - 63.5	SAND (SP): Same as 60.5 - 61.4 except wet.
			63.5 - 65.3	SILTY SAND (SM) AND SANDY SILT (ML) INTERBEDS: Olive, 5Y 4/3 to 5Y 5/4, wet to very moist; sand is very dense, fine, well sorted; sandy silt is firm, nonplastic; trace mica flakes; some sand lenses, olive, 5Y 5/6 to olive-yellow, 5Y 6/8.
			65.3 - 66.4	SAND (SP): Olive-gray, 5Y 4/2, wet, moderately dense, fine-grained, well sorted; with multi-colored fine laminations ranging olive-gray, 5Y 5/2 to light olive-gray, 5Y 6/2, less than 0.01 feet thick; trace mica flakes.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-11 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-20
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 68 - 73 feet	R = 4.4/5.0		68 - 72.4	SAND (SP): Olive-gray, 5Y 4/2, wet, moderately dense, fine-grained, well sorted, subangular; some silty sand zones; some silt lenses, 0.03 to 0.1 feet thick; some fine- to medium-grained sand lenses; trace mica flakes.

TOTAL DEPTH OF BOREHOLE: 73 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12

LITHOLOGIC LOG FOR MONITOR WELL MW-21

Dates: March 28, 1990
Weather: Morning: cool, overcast with occasional slight breezes
Afternoon: moderate to heavy winds from southeast
Drill Rig: CME 75
Sample Method: 5-foot continuous core barrel
Location: Corner of Pacific Gateway and Francisco Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Cuttings 0 - 3 feet			0 - 2	CLAYEY SILTY GRAVEL (GM/GC): Dark grayish brown, 2.5Y 4/2, slightly moist, very dense, fine- to coarse-grained, poorly sorted, subangular to subrounded; clay is soft, slightly plastic (fill).
			2 - 3	SANDY SLIT (ML): Light olive-brown, 2.5Y 5/4, slightly moist, soft, nonplastic; sand is fine, well sorted.
Hollow Auger Continuous Core 3 - 8 feet	R = 3.5/5.0	4-6.5/0	3 - 6.5	SANDY SILT (ML): Same as 2 - 3; grades to clayey sandy silt with depth.
Hollow Auger Continuous Core 8 - 13 feet	R = 5.0/5.0	8-10.5/0 10.5-13/1	8 - 13	CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/4, slightly moist, soft, nonplastic; trace fine sand; with occasional orange-rust colored oxidation staining.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 13 - 18 feet	R = 5.0/5.0	13-15.5/.5	13 - 16	CLAYEY SILT (ML): Same as 8 - 13 except with some hard nodules.
		15.5-18/0	16 - 18	CLAYEY SILT (ML): Olive, 5Y 4/2 to 5Y 5/4, slightly moist, soft to slightly firm, slightly plastic.
Hollow Auger Continuous Core 18 - 23 feet	R = 5.0/5.0	18-20.5/0	18 - 22	CLAYEY SILT (ML): Same as 16 - 18 except with some black staining and black relict rootlets.
		20.5-23/0	22 - 23	SILTY CLAY (CL): Dark yellowish brown, 10YR 4/4, slightly moist, slightly firm, moderately plastic; some dark brown mottling.
Hollow Auger Continuous Core 23 - 28 feet	R = 3.1/5.0	23-25/2	23 - 25	SILTY CLAY (CL): Same as 22 - 23; with some sand.
		25-26.1/0	25 - 26.1	SAND (SP): Yellowish brown, 10YR 5/6, to olive-gray, 5Y 5/2, moist, loose, fine- to medium-grained, well sorted, subangular.
Hollow Auger Continuous Core 28 - 33 feet	R = 5.0/5.0	28-30.5/1 30.5-33/.5	28 - 33	SILT (ML): Olive, 5Y 4/3, slightly moist, firm, slightly plastic; with occasional sandy silt zones; some clay.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 33 - 38 feet	R = 4.2/5.0	33-35/0.5	33 - 34.5	SILT (ML): Same as 28 - 33 except some sand; trace clay.
			34.5 - 35	SILTY SAND (SM): Olive, 5Y 5/3, moist, moderately dense, fine-grained; with hard clayey silt zones; gradational contact above.
		35-37.2/1.5	35 - 36.3	SAND (SP): Olive, 5Y 4/3, gray, 5Y 4/1 to 5Y 5/1, moist, dense, fine-grained, well sorted, subangular; with rust staining; some silt lenses, 0.1 feet thick.
			36.3 - 37.2	CLAYEY SILT (ML): Olive, 5Y 5/4, to gray, 5Y 5/1, slightly moist, very stiff, slightly plastic; some fine sand lenses, less than 0.01 feet thick; with abundant rust colored inclusions.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.2/5.0	38-41.2/2.5	38 - 38.5	CLAYEY SILT (ML): Same as 36.3 - 37.2.
			38.5 - 39	SANDY SILT (ML): Olive, 5Y 5/4, slightly moist, very stiff, nonplastic; sand is fine-grained.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 38 - 43 feet	R = 3.2/5.0		39 - 40.5	FOSSILIFERROUS SILTY SAND (SM): Yellowish brown, 10YR 5/6, to olive, 5Y 5/4, slightly moist, dense, medium- to fine-grained, moderately sorted; fossils comprised of well weathered, fragmented bivalve shells, white, brown and purple. At 40 feet, cemented nodule zone, 0.5 feet thick.
			40.5 - 41.2	SAND (SP): Olive-yellow, 5Y 6/6, to olive, 5Y 5/6, slightly moist, slightly dense, fine- to medium-grained, moderately sorted, subangular to subrounded; trace fine shell fragments.
Hollow Auger Continuous Core 43 - 48 feet	R = 3.4/5.0	43-45.5/4.5	43 - 46.4	SAND (SW/SP): Olive-yellow, 5Y 6/6, slightly moist, medium dense, fine- to medium-grained, poorly sorted; trace silt; some shell fragments. At 44 feet, cemented nodule zone, 0.5 feet thick. At 45 feet, grades silty. At 45.5 feet, sand is mostly fine-grained, moderately sorted, olive, 5Y 5/4.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 48 - 53 feet	R = 3.5/5.0	48-49.8/45	48 - 49	CLAYEY SAND (SC): Olive, 5Y 4/3, slightly moist, moderately dense, medium-grained, with abundant rust staining.
		49.8-50.2/45	49 - 50	SANDY SILT (ML): Orange and olive, 5Y 4/3, slightly moist, very stiff, nonplastic.
			50 - 50.8	SAND (SP): Olive, 5Y 5/4, to olive-yellow, 5Y 6/6, slightly moist, slightly dense, fine-grained, well sorted.
		50.2-51.5/500	50.8 - 51.5	CLAYEY SILT (ML): Olive, 5Y 5/4 to 5Y 4/4, slightly moist, slightly stiff, slightly plastic.
Hollow Auger Continuous core 53 - 58 feet	R = 3.5/5.0	53-55/350	53 - 56.5	SAND (SP): Multibanded orange, olive, 5Y 4/4, and olive-gray, 5Y 5/2, slightly moist, loose to slightly dense, fine-grained, subrounded subangular.
		56.2-56.5/150		At 56 feet, some fine silt lenses, olive, 5Y 4/3, slightly moist, firm, 0.01 to 0.05 feet thick.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 58 - 63 feet	R = 2.9/5.0	58-60/350	58 - 60	SAND (SP): Olive, 5Y 4/3, very moist to wet, medium dense, fine-grained, well sorted; some silt.
		60-60.9/10	60 - 60.9	SILTY SAND (SM): Olive-gray, 5Y 4/2, very moist to wet, medium dense, fine-grained, well sorted, subangular; gradational contact above.
Hollow Auger Continuous Core 63 - 68 feet	R = 4.0/5.0	64/10 65/250 66.5/50	63 - 67	SAND (SP): Dark grayish brown, 2.5Y 4/2, wet, loose to slightly dense, fine-grained, well sorted. At 66 feet, sand lenses, gray and orange colored, medium-grained, well sorted, 0.2 feet thick.
Hollow Auger Continuous core 68 - 73 feet	R = 5.0/5.0	68-69/300 69-70/500 70-72/450 72-73/100 73/175	68 - 73	SAND (SP): Olive-gray, 5Y 4/2, to dark olive-gray, 5Y 3/2, wet, medium dense, fine-grained, well sorted, subangular; trace silt; trace mica flakes.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-12 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-21
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 68 - 73 feet	R = 5.0/5.0			SAND (SP): (continued) At 72 feet, clayey silt lens, light olive-brown, 2.5Y 5/4, firm, slightly plastic, 0.3 feet thick.

TOTAL DEPTH OF BOREHOLE: 73 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13

LITHOLOGIC LOG FOR MONITOR WELL MW-22

Dates: April 1, 1990
Weather: Cool overcast morning, warm, hazy afternoon with occasional breezes from west and south
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: North side of Virco property along the railroad tracks and the former Torrance Place

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 0 - 3 feet	R = 2.7/3.0	0-3/0.2	0 - 1	GRAVELLY SILTY SAND (SW/SM): Pale olive, 5Y 6/3, dry, loose, fine- to coarse-grained, poorly sorted; gravel is fine- to coarse-grained (fill).
			1 - 2.7	SANDY SILT (ML): Dark brown, 7.5 YR 3/2, slightly moist, slightly firm, nonplastic; sand is fine-grained.
Hollow Auger Continuous Core 3 - 8 feet	R = 5.0/5.0	3-8/0.4	3 - 6	SANDY SILT (ML) WITH SAND (SP) INTERBEDS: Dark brown, 7.5 YR 3/2, slightly moist, very firm, nonplastic; sand is fine-grained, well sorted; some dark brown to black inclusions.
			6 - 8	SAND (SP): Brown, 7.5 YR 4/4, slightly moist, slightly dense, fine- to medium-grained, moderately sorted, subangular to angular; some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 8 - 13 feet	R = 4.7/5.0	8-10/0.5	8 - 8.5	SAND (SP): Same as 6 - 8.
			8.5 - 9	SANDY SILTY CLAY (CL): Olive, 5Y 5/4, slightly moist, slightly stiff, moderately plastic; sand is fine-grained.
		10-12/0	9 - 12.4	SAND (SP): Yellowish brown, 10YR 5/6, slightly moist, moderately dense, fine-grained, well sorted; with silty sand lenses, olive, 5Y 5/4, very dense, fine-grained.
			12.4 - 12.7	CLAYEY SILT (ML): Olive, 5Y 5/6, slightly moist, stiff, slightly to moderately plastic; some rust and black colored mottling and relict rootlets; trace sand.
Hollow Auger Continuous Core 13 - 18 feet	R = 5.0/5.0	13-15/1.6	13 - 16	CLAYEY SILT (ML): Same as 12.4 - 12.7.
		15-18/0.8	16 - 18	SANDY SILT (ML): Light olive-brown, 2.5Y 5/6, slightly moist, very firm, nonplastic; sand is fine-grained, well sorted; with reddish black relict rootlets.
Hollow Auger Continuous Core 18 - 23 feet	R = 5.0/5.0	18-23/0.5	18 - 18.5	CLAYEY SILT (ML): Olive-brown, 2.5Y 4/4, slightly moist, very firm, slightly plastic; with blackish brown mottling and organic lenses, 0.02 feet thick.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 18 - 23 feet	R = 5.0/5.0		18 - 22	SANDY SILT (ML): Olive-brown, 2.5Y 4/4, slightly moist, very firm, nonplastic; with some blackish brown inclusions.
			22 - 23	SILTY SAND (SM): Olive-brown, 2.5Y 4/4, dry to slightly moist, moderately dense, fine-grained, well sorted; gradational contact above.
Hollow Auger Continuous Core 23 - 28 feet	R = 5.0/5.0	23-25/0.8	23 - 24	SILTY SAND (SM): Same as 22 - 23.
		25-28/0.8	24 - 27.5	SANDY SILT (ML): Light olive-brown, 2.5Y 5/6, slightly moist, very stiff, some hard zones; slightly plastic; sand is fine-grained.
			27.5 - 28	SAND (SP): Light olive-brown, 2.5Y 5/4, dry to slightly moist, loose to slightly dense, fine-grained, well sorted; some silt; with various shades of olive colored laminations.
Hollow Auger Continuous Core 28 - 33 feet	R = 3.8/5.0	28-30/0	28 - 29	SAND (SP): Same as 27.5 - 28. At 28.5 feet, cemented lens, 0.03 feet thick.
		30-31/0.2	29 - 31.8	SANDY SILTY CLAY (CL): Olive, 5Y 5/3, slightly moist, stiff, moderately plastic; with rust colored inclusions and laminations; some sand lenses.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 28 - 33 feet	R = 3.8/5.0		29 - 31.8	SANDY SILTY CLAY (CL): (continued) At 29.5 feet, purplish black lens, organic, 0.2 feet thick.
Hollow Auger Continuous Core 33 - 38 feet	R = 3.7/5.0	33-36.7/1.8	33 - 34	SANDY SILT (ML): Olive, 5Y 5/4, dry to slightly moist, slightly stiff, nonplastic; with abundant rust colored staining; sand is fine-grained.
			34 - 36.7	SAND (SP): Olive-yellow, 2.5Y 6/8, slightly moist, medium dense, fine-grained, well sorted; some silt.
Hollow Auger Continuous Core 38 - 43 feet	R = 3.5/5.0	38-40/0.8	38 - 39.5	SAND (SP): Same as 34 - 36.7.
			39.5 - 40	FOSSILIFEROUS SAND (SP): Light yellowish brown, 2.5Y 6/4, slightly moist, very dense, fine-grained, well sorted; some cemented zones; fossils comprised of fragmented clam shells, moderately weathered, white and cream colored.
		40-41.5/2.1	40 - 41.5	CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/6, very stiff, moderately plastic; some sand lenses, 0.02 to 0.1 feet thick. At 41 feet, light olive-gray, 5Y 6/2.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 43 - 48 feet	R = 3.3/5.0	45-46.3/0.8	43 - 43.5	SILTY SAND (SM): Orangish brown and olive, 5Y 4/3, slightly moist, medium dense, fine-grained, well sorted.
			43.5 - 46.3	SAND (SP): Light gray, 2.5Y 7/2, damp, fine-grained, well sorted, subangular; with abundant fine black colored laminations; trace silt.
Hollow Auger Continuous Core 48 - 53 feet	R = 3.5/5.0	50-51.3/2.4	48 - 51	SAND (SP): Light olive-brown, 2.5Y 5/4, slightly moist, slightly dense, fine-grained, well sorted, subangular; increasing coarseness with depth. At 50.8 feet, silt (ML) and sandy silt (ML) lenses, light olive-brown, 2.5Y 5/6, slightly moist, soft to slightly firm, 0.05 to 0.1 feet thick.
			51 - 51.5	SAND (SP): Light gray, 2.5Y 7/2, damp, loose, fine- to medium-grained.
Hollow Auger Continuous Core 53 - 58 feet	R = 3.1/5.0	53-55/3.8 55-56.1/1.4	53 - 56.1	SAND (SP): Light brownish gray, 2.5Y 6/2, damp, slightly to moderately dense, fine-grained, well sorted, subangular to subrounded. rounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 53 - 58 feet	R = 3.1/5.0		53 - 56.1	SAND (SP): (continued) At 54.7 feet, silt lens, light olive-brown, 2.5Y 5/6, damp, soft, nonplastic, 0.1 feet thick.
Hollow Auger Continuous Core 58 - 63 feet	R = 3.2/5.0	58-61.2/3.8	58 - 61.2	SAND (SP): Same as 53 - 56.1 except with some discontinuous rust to orange colored lenses, 0.02 to 0.1 feet thick.
Hollow Auger Continuous Core 63 - 68 feet	R = 2.5/5.0	63-65/1.7 65.5/3.2	63 - 65.5	SAND (SP): Light brownish gray, 2.5Y 6/2, wet, medium dense, fine-grained, moderately to well sorted, subrounded to subangular, some sandy silt lenses, 0.01 to 0.03 feet thick; sand is comprised of quartz grains with some feldspar grains.
Hollow Auger Continuous Core 68 - 73 feet	R = 5.0/5.0	68-73/4.0	68 - 68.5	SILTY SAND (SM): Olive-gray, 5Y 5/2, wet, very dense, fine-grained, well sorted.
			68.5 - 71	CLAY (CH/CL): Pale olive, 5Y 6/3, slightly moist, very stiff, very plastic; trace sand; abundant orange-rust mottling.
			71 - 71.5	SILTY SAND (SM): Dark brown, 7.5YR 3/2, wet, very dense, fine-grained, well sorted; laminated; trace mica flakes.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-13 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-22
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 68 - 73 feet	R = 5.0/5.0		71.5 - 73	CLAY (CH/CL): Light olive-gray, 5Y 6/2, slightly moist, very stiff, very plastic; abundant orange colored staining.

TOTAL DEPTH OF BOREHOLE: 73 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14

LITHOLOGIC LOG FOR MONITOR WELL MW-23

Dates: August 3, 1989
Weather: Overcast, warm, humid, slight southerly breeze
Drill Rig: CME 75
Sample Method: 5-foot continuous core barrel
Location: Budlong Avenue north of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 0 - 5 feet			0 - 3	CLAY (CH): Black, 10YR 2/1, slightly moist, very firm to stiff, plastic.
			3 - 4	SAND (SP): Grayish brown, 2.5Y 4/2, dry, loose, fine- to medium-grained, angular, some silt.
			4 - 5	SANDY SILT (ML): Olive-brown, 2.5Y 4/4; moist, slightly firm, nonplastic; trace of mica flakes.
Hollow Auger Continuous Core 5 - 10 feet	R = 4.5/5.0		5 - 9.5	SANDY SILT (ML): Same as 4 - 5.
Hollow Auger Continuous Core 10 - 15 feet	R = 2.0/5.0		10 - 12	SANDY SILT (ML): Same as 4 - 5. At 13 feet, no mica flakes.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-23
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 15 - 20 feet			15 - 20	SANDY SILT (ML): Same as 4 - 5. At 16 feet, grading light olive-gray, 5Y 5/2, slightly indurated zones, without sand, .08 - .25 feet thick. At 17 feet, occasional black stringers.
Hollow Auger Continuous Core 20 - 25 feet	R = 5.0/5.0		20 - 24	SANDY SILT (ML): Same as 10 - 15.
			24 - 25	SAND (SP): Light olive-brown, 2.5Y 5/6, to olive-brown, 2.5Y 4/4, slightly moist, slightly dense to dense, fine-grained, well sorted, occasional residual shell fragments up to 2-inch diameter.
Hollow Auger Continuous Core 25 - 30 feet	R = 5.0/5.0	30/0	25 - 28	SAND (SP): Same as 24 - 25. At 26 feet, slightly cemented, 0.2 feet thick.
			28 - 30	CLAYEY SANDY SILT (ML): Mottled olive, 5Y 4/3, and yellowish brown, 10YR 5/8, slightly moist, slightly stiff, nonplastic; sand is fine, angular; some mica flakes. At 29 feet, occasional dark brown, 10YR 3/3, mottling.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-23
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 30 - 35 feet	R = 5.0/5.0		30 - 32	CLAYEY SANDY SILT (ML): Same as 28 - 30.
				At 31 feet, cemented zone, 0.2 feet thick.
			32 - 33	SILT (ML): Olive, 5Y 4/3, slightly moist, stiff, nonplastic.
			33 - 33.5	SILTY SAND (SM): Rust to dark yellow-brown, 10YR 4/6, slightly moist, medium dense, fine-grained, moderately well sorted, subangular.
			33.5 - 35	SILT (ML): Olive-brown, 2.5Y 4/4, slightly moist, slightly stiff, nonplastic; some sand, very fine-grained, subangular; trace of mica flakes.
Hollow Auger Continuous Core 35 - 40 feet	R = 2.5/5.0		35 - 37.5	SILT (ML): Same as 33.5 - 35.
				At 35 feet, alternating olive-brown, 2.5Y 4/4, and light olive-brown, 2.5Y 5/6, trace of clay.
Hollow Auger Continuous Core 40 - 45 feet	R = 5.0/5.0	44/0	40 - 44	SILT (ML): Same as 33.5 - 35.
				At 40 feet, interbedded sandy silt.
				At 43 feet, some mica.

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ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-23
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 40 - 45 feet			44 - 45	SILTY SAND (SM): Predominantly olive, 5Y 4/3, with pale brown zones, 10Y 6/3, slightly moist, slightly dense, fine-grained, yellowish brown inclusions of sand; gradational contact above.
Hollow Auger Continuous Core 45 - 50 feet	R = 3.0/5.0		45 - 48	SAND (SP): Grayish brown, 2.5Y 5/2, slightly moist, loose, fine-grained, well sorted, subrounded to subangular; some mica.
Hollow Auger Continuous Core 50 - 55 feet	R = 5.0/5.0		50 - 51	SILT (ML): Dark yellowish brown, 10Y 4/6, slightly moist, stiff, nonplastic, thinly laminated; some fine sand.
			51 - 53	SILTY CLAY (CL): Olive-gray, 5Y 5/2, slightly moist, very stiff to hard, slightly plastic, some tan colored inclusions, occasional black colored inclusions.
			53 - 55	SILT (ML): Same as 50 - 51. At 54 feet, iron oxidation laminations.
Hollow Auger Continuous Core 55 - 60 feet	R = 4.0/5.0		55 - 56.5	SILT (ML): Same as 50 - 51. At 56 feet, thinly laminated bands of olive, 5Y 4/3, and dark yellowish brown, 10YR 4/6, colors.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-23
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DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 55 - 60 feet	R = 4.0/5.0		56.5 - 58	SAND (SP): Light olive-brown, 2.5Y 5/6, slightly moist, slightly dense, fine- to medium-grained, moderately to well sorted.
			58 - 59	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, slightly moist, slightly dense, fine- to medium-grained, well sorted; gradational contact above.
Hollow Auger Continuous Auger 60 - 65 feet	R = 5.0/5.0		60 - 60.5	SILTY SAND (SM): Same as 58 - 60.
			60.5 - 65	SANDY SILT (ML) WITH SILTY SAND (SM) INTERBEDS: Olive-brown, 2.5Y 4/4, slightly moist, very stiff to hard, nonplastic; sand is fine-grained, well sorted, subangular. At 64 feet, olive-gray, 5Y 5/2, lens, 0.3 feet thick.
Hollow Auger Continuous Core 65 - 70 feet	R = 5.0/5.0		65 - 70	SAND (SP) WITH SILTY SAND (SM) INTERBEDS: Light olive-brown, 5Y 4/2, wet, loose, fine-grained, well sorted, subangular; silty sand zones are loose.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-14 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-23
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 70 - 75 feet	R = 3.5/5.0		70 - 73	SAND (SP) WITH SILTY SAND (SM) INTERBEDS: Same as 65 - 70.
			73 - 74	SANDY CLAYEY SILT (ML): Light olive-brown, 5Y 4/2, moist, slightly stiff, slightly plastic.
			74 - 75	SAND (SP): Olive-gray, 5Y 4/2, wet, loose, medium-grained, well sorted, subangular to subrounded; some mica.
Hollow Auger Continuous Core 75 - 80 feet			75 - 80	SAND (SP): Same as 74 - 75.

TOTAL DEPTH OF BOREHOLE: 80 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15

LITHOLOGIC LOG FOR MONITOR WELL MW-24

Dates: August 4, 1989
Weather: Overcast and cool morning; sunny, warm afternoon; westerly breeze
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: Milton Street, east of Kenwood Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 0 - 4 feet	R = 1.0/4.0		0 - 1	GRAVELLY SAND (SW) (FILL): Gray, 5Y 5/1, dry, very loose, sand is fine- to coarse-grained, poorly sorted; gravel fine- to medium-grained;
			1 - 4	CLAYEY SILT (ML): Black, 2.5Y 2/0; slightly moist, firm, slightly plastic; some sand; trace plant material. Description based on cuttings.
Hollow Auger Continuous Core 4 - 9 feet			4 - 5	CLAYEY SILT (ML): Same as 1 - 4.
			5 - 6	SANDY GRAVEL (SW): Blue-gray, 5Y 4/2, dry, loose; gravel is fine- to medium-grained, poorly sorted; sand is fine- to coarse-grained; some clay.
			6 - 9	CLAYEY SILT (ML): Olive-gray, 5Y 4/2, slightly moist, firm, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-24
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 9 - 14 feet	R = 3.0/5.0	9/0	9 - 10	CLAYEY SILT (ML): Same as 6 - 9.
			10 - 13	SILTY SAND (SM): Blue-gray, 5Y 4/2, moist, slightly dense, fine-grained sand, moderately sorted, subangular, trace mica; gradational contact above.
Hollow Auger Continuous Core 14 - 19 feet	R = 5.0/5.0		14 - 19	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT (ML): Mottled yellowish brown, 10Y 5/8, with olive, 5Y 5/2; slightly moist, medium dense, fine-grained sand, moderately sorted, sub angular; some clay; trace mica flakes.
Hollow Auger Continuous Core 19 - 24 feet	R = 5.0/5.0	19/0	19 - 20	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT (ML): Same as 14 - 19.
			20 - 21	SILTY CLAY (CL): Olive-gray, 5Y 4/2, slightly moist, very stiff to hard, slightly plastic; some mica.
			21 - 24	SILTY SAND (SM): Mottled olive, 5Y 5/3, and olive-yellow, 2.5Y 6/6, slightly moist, slightly dense, fine-grained sand, moderately sorted, subangular; some mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-24
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 24 - 29 feet	R = 3.5/5.0		24 - 27	SILTY SAND (SM): Same as 21 - 24.
				At 26 feet, sand lens, light olive-brown, 2.5Y 5/4, slightly moist to dry, loose, well sorted, subrounded to subangular, 1/3 foot thick, some mica.
			27 - 28	SILTY CLAY (CL): Interbedded light olive-brown, 2.5Y 5/4, and olive, 5Y 5/3, slightly moist to dry, hard.
			28 - 29	SAND (SP): Olive, 5Y 5/4, dry to slightly moist, loose, fine-grained, well sorted.
Hollow Auger Continuous Core 29 - 34 feet	R = 2.5/5.0	34/0	29 - 31.5	SAND (SP): Same as 28 - 29.
Hollow Auger Continuous Core 34 - 39 feet	R = 5.0/5.0		35 - 39	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Interbedded olive, 5Y 5/3, and light olive-brown, 2.5Y 5/6, slightly moist, sand is dense, fine-grained, well sorted, subangular; silt is stiff, nonplastic; rust colored sand inclusions; occasional clayey zones; some mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-24
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 39 - 44 feet	R = 5.0/5.0		39 - 44	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Same as 35 - 39. At 42 feet, increasing density in silty sands to very dense.
Hollow Auger Continuous Core 44 - 49 feet	R = 5.0/5.0	44/0	44 - 45.5	SILTY SAND (SM) WITH SANDY SILT (ML) INTERBEDS: Same as 39 - 44. At 45 feet, sand lens, wet, .25 feet thick.
			45.5 - 49	SILTY CLAY (CL): Light olive-gray, 5Y 6/2, slightly moist, very stiff to hard. At 48 feet, decreasing silt content, vertical rust colored infilled tubes, 1 to 2 inches long and 1/4-inch diameter.
Hollow Auger Continuous Core 49 - 54 feet	R = 4.0/5.0	49/0	49 - 50.5	SILTY CLAY (CL): Same as 45.5 - 49. At 49 feet, shell fragments, weathered.
			50.5 - 51	SILTY SAND (SM) INTERBEDDED WITH SANDY SILT (ML) AND SAND (SP): Olive-gray, 2.5Y 5/2, moist, dense, fine-grained sand, well sorted, orange-brown laminated zones.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-24
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 49 - 54 feet	R = 4.0/5.0	53/0	51 - 53	SANDY SILT (ML): Olive-gray, 2.5Y 5/2, very moist, very stiff, slightly plastic; some clay. At 53 feet, wet, sandy zone, very stiff, .25 feet thick; some mica.
Hollow Auger Continuous Core 54 - 56.5 feet	R = 2.5/2.5		54 - 56.5	SAND (SP): Olive-gray, 2.5Y 5/2, wet, slightly dense to loose, fine-grained, well sorted, subangular; some mica.
Hollow Auger Continuous Core 56.5 - 59 feet	R = 2.5/2.5		56.5 - 57	SAND (SP): Same as 54 - 56.5.
		59/0	57 - 59	SILTY CLAY (CL): Slightly bluish olive-gray, 5Y 5/2, very moist, stiff; some thin rusty yellow silt layers, .05 - .1 feet thick; trace mica.
Hollow Auger Continuous Core 59 - 64 feet	R = 5.0/5.0		59 - 62.5	SILTY CLAY (CL): Same as 57 - 59.
			62.5 - 64	CLAY (CL): Very dark gray to black, 2.5Y 3/0, moist, stiff to very stiff, moderately plastic, trace mica.
Hollow Auger Continuous Core 64 - 68.5 feet	R = 4.5/4.5	64/0	64 - 67	CLAY (CL): Same as 62.5 - 64. At 65 feet, some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-15 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-24
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 64 - 68.5 feet	R = 4.5/4.5		67 - 68.5	CLAYEY SILT (ML): Olive-gray, 5Y 5/2, very moist, hard to slightly indurated for approximately .2 feet, then very stiff; slightly plastic, occasional rust colored sandy silt laminations.

TOTAL DEPTH OF BOREHOLE: 68.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-16

LITHOLOGIC LOG FOR MONITOR WELL MW-25

Dates: August 5, 1989
Weather: Partly cloudy, warm, slight southeasterly breeze
Drill Rig: CME-75
Sample Method: 5-foot continuous core barrel
Location: Raymond Avenue, south of Torrance Boulevard

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 0 - 4.5 feet	R = 4.5/4.5	0-4.5/0	0 - 1	GRAVELLY SANDY CLAY (CL): Gray, 5Y 5/1, dry, very loose, sand is fine- to coarse-grained, gravel is fine- to coarse-grained, poorly sorted (fill).
			1 - 4.5	SILTY CLAY (ML): Very dark gray, 5Y 3/1, slightly moist, stiff, slightly plastic.
Hollow Auger Continuous Core 4.5 - 9.5 feet	R = 5.0/5.0	5-9.5/0	4.5 - 5	SILTY CLAY (ML): Same as 1 - 4.5.
			5 - 9.5	SANDY SILT (ML): Light olive-brown, 2.5Y 5/4, dry to slightly moist, firm, nonplastic; sand is fine-grained; trace clay.
Hollow Auger Continuous Core 9.5 - 14.5 feet	R = 2.5/5.0	9.5-14.5/0	9.5 - 10	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, dry to slightly moist, medium dense, fine-grained, poorly sorted, subangular; gradational contact above.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-16 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-25
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous core 9.5 - 14.5 feet	R = 2.5/5.0		10 - 11.5	FOSSILIFEROUS SAND (SP): Light olive-brown, 2.5Y 5/6, dry to slightly moist, fine-grained, well sorted, subangular to angular; some clay. At 14 feet, abundant shells and shell fragments; nonweathered to moderately weathered.
Hollow Auger Continuous Core 14.5 - 19.5 feet	R = 3.0/5.0	14.5-19.5/0	14.5 - 17.5	FOSSILIFEROUS SAND (SP): Same as 10 - 11.5. At 16 feet, grades light yellowish brown, 2.5Y 6/4.
Hollow Auger Continuous Core 19.5 - 24.5 feet	R = 4.0/5.0	19.5-24.5/0	19.5 - 23.5	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, slightly moist, medium dense, fine-grained, trace medium sand grains, moderately sorted; trace mica. At 24 feet, grades dark yellowish brown, 10Y 4/6, less silt.
Hollow Auger Continuous Core 24.5 - 29.5 feet	R = 4.0/5.0	24.5-29.5/0	24.5 - 28.5	SILTY SAND (SM): Same as 19.5 - 24.5. At 27 feet, turns light olive-brown, 2.5Y 5/6, increase in silt content.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-16 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-25
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 29.5 - 34.5 feet	R = 3.7/5.0	29.5-33/0	29.5 - 33.2	SANDY SILT (ML): Mottled light olive-brown, 2.5Y 5/6, and olive, 5Y 5/4, dry to slightly moist, stiff, slightly plastic; sand is fine-grained; some clay, trace mica; some rust dark brown colored tubes, possible relict fossils, mostly vertical, .02-feet diameter.
Hollow Auger Continuous Core 34.5 - 39.5 feet	R = 3.5/4.0	34.5-37/0	34.5 - 38	SANDY SILT (ML): Same as 29.5 - 34.5 except occasional clayey silt zones and laminated sand lenses, approximately .01 foot thick.
Hollow Auger Continuous Core 39.5 - 44.5 feet	R = 5.0/5.0	39.5-44.5/1	39.5 - 40.0	SANDY SILT (ML): Same as 34.5 - 39.5.
			40 - 44	CLAYEY SILT (ML): Olive, 5Y 5/3, some dark yellowish brown, 10Y 5/4, mottling, slightly moist, very stiff to hard, slightly plastic.
			44 - 44.5	SANDY SILT (ML): Olive, 5Y 5/3, slightly moist, very stiff; sand is fine-grained, angular.
Hollow Auger Continuous Core 44.5 - 49.5 feet	R = 3.5/5.0	44.5-48/3	44.5 - 45.5	SANDY SILT (ML): Same as 44 - 44.5.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-16 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-25
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 44.5 - 49.5 feet			45.5 - 48	SILT (ML): Olive, 5Y 5/3, some light olive-brown, 2.5Y 5/6, layers up to 1/2 foot thick, stiff; some fine-grained sand; some clay; trace mica.
Hollow Auger Continuous Core 49.5 - 54.5 feet	R = 5.0/5.0	49.5-54.5/3	49.5 - 53.5	SILT (ML): Same as 45.5 - 48. At 53 feet, grades sandy.
			53.5 - 54.5	SAND (SP): Olive-gray, 5Y 5/3, to olive, 5Y 5/3, slightly moist, medium dense, fine-grained, well sorted, subangular; some silt; trace mica.
Hollow Auger Continuous Core 54.5 - 59.5 feet	R = 2.5/5.0	54.5-57/18	54.5 - 57	SAND (SP): Same as 53.5 - 54.4. At 56.5 feet, trace silt, very moist; some brown, 7.5Y 5/8, laminations.
Hollow Auger Continuous Core 59.5 - 64.5 feet	R = 2.5/5.0	59.5-62/39	59.5 - 62	SAND (SP): Same as 54.5 - 57. At 59.5 feet, wet.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-16 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-25
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 64.5 - 69.5 feet	R = 2.0/5.0	64.5-66.5/35	64.5 - 66.5	SAND (SP): Same as 59.5 - 62. At 66 feet, silt interbeds, .02 to .2 feet thick.
Hollow Auger Continuous Core 69.5 - 74.5 feet	R = 3.0/5.0	69.5-72/45	69.5 - 72.5	SAND (SP): Olive-gray, 5Y 4/2, wet, loose, fine-grained, well sorted, subangular to subrounded.

TOTAL DEPTH OF BOREHOLE: 74.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-17

LITHOLOGIC LOG FOR MONITOR WELL MW-26

Dates: August 6, 1989
Weather: Sunny, warm, no breeze
Drill Rig: CME-75
Sample Method: Continuous core barrel
Location: On Milton Street, immediately east of Normandie Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 0 - 5 feet	R = 5.0/5.0		0 - 1.5	CLAY (CL): Very dark gray, 10Y 3/1, slightly moist, firm to stiff, moderately plastic; some silt.
			1.5 - 5	SILTY CLAY (CL): Dark grayish brown, 10Y 4/2, dry to slightly moist, firm, slightly plastic; trace sand.
Hollow Auger Continuous Core 5 - 10 feet	R = 5.0/5.0	5.5-10/0	5 - 5.5	SILTY CLAY (CL): Same as 1.5 - 5. At 5.5 feet, sandy gravel (GW), dry, loose, poorly sorted to 1-1/4-inch diameter, 2-1/2 inches thick.
Hollow Auger Continuous core 5 - 10 feet			5.5 - 10	SANDY CLAYEY SILT (ML): Olive-brown, 2.5Y 4/4, slightly moist, firm, slightly plastic; sand is fine-grained; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-17 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-26
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 10 - 15 feet	R = 3.0/5.0	10-13/0	10.0 - 13	SANDY CLAYEY SILT (ML): Same as 5.5 - 10. At 14 feet, some sand.
Hollow Auger Continuous Core 15 - 20 feet	R = 5.0/5.0	15-20/0	15 - 20	CLAYEY SILT (ML): Olive-brown, 2.5Y 4/4, slightly moist, firm, slightly plastic.
Hollow Auger Continuous Core 20 - 25 feet	R = 2.5/5.0	20-22.5/0	20 - 22	CLAYEY SILT (ML): Same as 10 - 13. At 21 feet, grades sandy.
			22 - 22.5	SAND (SP): Olive, 5Y 4/3, slightly moist, medium dense, fine-grained, well sorted, angular; some silt.
Hollow Auger Continuous Core 25 - 30 feet		25-28/0	25 - 26	SAND (SP): Same as 22 - 22.5.
			26 - 27.5	CLAYEY SILT (ML): Olive, 5Y 4/3, slightly moist, stiff, slightly plastic; some sand, trace mica. At 27 feet, grades sandy.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-17 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-26
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 25 - 30 feet			27.5 - 30	SAND (SP): Olive, 5Y 4/3, and dark yellowish brown, 10Y 4/6, slightly moist, medium dense, fine-grained, well sorted, subangular; some silt.
Hollow Auger Continuous Core 30 - 35 feet	R = 4.5/5.0	30-34.5/0	30 - 33	SAND (SP): Same as 27.5 - 30.
			33 - 34.5	SILT (ML): Olive, 5Y 4/3, slightly moist, hard; some sandy silt and silty sand interbeds; sand is fine-grained, subangular; trace mica.
Hollow Auger Continuous Core 35 - 40 feet	R = 2.5/5.0	35-37/0	35 - 37.5	SAND (SP): Olive, 5Y 5/3, with strong brown, 7.5Y 5/6, mottling, slightly moist, loose, fine-grained, well sorted, angular to subangular.
Hollow Auger Continuous Core 40 - 45 feet	R = 3.0/5.0	40-42/0	40 - 41	SAND (SP): Same as 35 - 37.5.
			41 - 43	CLAYEY SILT (ML): Multilayered olive, 5Y 5/4, and light olive-brown, 2.5Y 5/6, slightly moist, soft to very stiff; interbedded fine-grained sand lenses, .01 feet thick; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-17 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-26
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 45 - 50 feet	R = 5.0/5.0	45-50/0	45 - 47.5	CLAYEY SILT (ML): Same as 41 - 43. At 46.5 feet, grades to sandy silt.
			47.5 - 50	SILTY SAND (SM): Olive, 5Y 4/3, slightly moist, dense, fine-grained, well sorted, angular; trace mica.
Hollow Auger Continuous Core 50 - 55 feet	R = 2.5/5.0	50-52.5/1	50 - 52.5	SILTY SAND (SM): Same as 47.5 - 50. At 51 feet, some sandy silt zones, very stiff.
Hollow Auger Continuous Core 55 - 60 feet	R = 3.0/5.0	55-57.5/0	55 - 58	SAND (SP): Olive-gray, 5Y 4/2, dry to slightly moist, loose, fine-grained, well sorted, sub-angular; trace mica; some sandy silt interbeds, olive, 5Y 5/4, firm, .02 to .08 feet thick.
Hollow Auger Continuous Core 60 - 65 feet	R = 2.0/5.0	60-62/0	60 - 62	SAND (SP): Same as 55 - 58. At 62 feet, some silt.
Hollow Auger Continuous Core 65 - 67.5 feet	R = 2.5/2.5	65-67/0	65 - 67.5	SAND (SP): Same as 60 - 62. At 65 feet, no silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-17 (continued)
LITHOLOGIC LOG FOR MONITOR WELL MW-26
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Hollow Auger Continuous Core 67.5 - 70 feet	R = 2.5/2.5		67.5 - 70	SAND (SP): Same as 65 - 67.5. At 67.5 feet, dark olive-gray, 5Y 3/2.
Hollow Auger Continuous Core 70 - 75 feet	R = 4.0/5.0		70 - 74	SAND (SP): Same as 67.5 - 70. At 70 feet, silt lens, .02 feet thick.
Hollow Auger Continuous Core 75 - 80 feet	R = 5.0/5.0		75 - 75.5	SANDY SILT (ML): Interbedded olive, 5Y 5/4, and dark yellowish brown, 10Y 4/6, to orange-brown, moist, stiff, nonplastic; sand is fine-grained, subangular.
			75.5 - 79.5	SILTY CLAY (CL): Olive-gray, 5Y 5/2, moist, very stiff, slightly plastic, some orange-brown sandy zones.
			79.5 - 80	SAND (SP): Olive-gray, 5Y 4/2, wet, loose, fine-grained, well sorted, subangular to angular; some silt.

TOTAL DEPTH OF BOREHOLE: 80 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-18

LITHOLOGIC LOG FOR MONITOR WELL BF-10

Dates: November 20-21, 1989, and December 1, 1989
Weather: Cool mornings, warm afternoons; sunny, light winds from west
Drill Rig: Gardner Denver 1000
Sample Method: No samples collected
Location: New Hampshire Avenue, south of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 130.5	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-12.

TOTAL DEPTH OF BOREHOLE: 130.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-19

LITHOLOGIC LOG FOR MONITOR WELL BF-11

Dates: December 5-6, 1989
Weather: Sunny, cool to cold mornings, warm afternoons; occasional breezes
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings
Location: Berendo Avenue, north of 212th Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 126 feet	NA	NA	0 - 5	No samples collected for lithologic logging.
			10 - 16	CLAYEY SILT (ML) INTERBEDDED WITH SILTY CLAY (CL): Dark gray, 5Y 4/1, to olive, 5Y 4/4, slightly moist, very firm, moderately plastic.
			16 - 22	SILTY SAND (SM): Olive, 5Y 5/6, very moist, medium dense, fine-grained, well sorted, with some olive, 5Y 4/4, colored zones.
			22 - 25	GRAVELLY SAND (SW): Strong brown, 7.5Y 5/6, medium dense to dense, poorly sorted, fine- to coarse-grained, angular to subangular; gravel up to 1-inch diameter; with some silt.
			25 - 28	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, medium dense, fine-grained, well sorted; some gray silt lenses.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-19 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-11
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 126 feet	NA	NA	28 - 30	SILT (ML) INTERBEDDED WITH SANDY SILT (ML): Olive-yellow, 2.5Y 6/8, to olive-gray, 5Y 5/2, firm; sand is fine-grained, nonplastic.
			30 - 40	CLAYEY SANDY SILT (ML): Multibanded colors of olive-gray, 5Y 4/2, dark gray, 5Y 4/1, and olive-yellow, 2.5Y 6/6, slightly plastic; some sand interbeds, dark yellowish brown, 10YR 3/6, medium dense, fine-grained.
				At 35 feet, grades to silt with sandy silt interbeds, yellowish brown, 10YR 5/6, to light olive-brown, 2.5Y 5/6; occasional gravel pieces to 1/4-inch diameter.
			40 - 45	SILTY SAND (SM): Light olive-brown, 2.5Y 5/6, to grayish brown, 2.5Y 5/2, dense, fine-grained, well sorted.
			45 - 57	CLAYEY SANDY SILT (ML): Olive, 5Y 5/4, to olive-gray, 5Y 4/2, moderately plastic.
				At 45 - 50 feet, some clay interbeds.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-19 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-11
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 126 feet	NA	NA	45 - 57	CLAYEY SANDY SILT (ML): (continued) At 50 feet, multibanded colors of rust brown, olive-yellow, 5Y 6/6, olive-gray, 5Y 5/2, and yellowish brown, 10YR 5/6, very stiff, some cemented zones. At 55 feet, grades to clayey silt.
			57 - 65	SILTY SAND (SM): Olive, 5Y 5/3, to olive-gray, 5Y 5/2, loose to medium dense, fine-grained, well sorted. At 60 feet, less silt content; occasional silt lenses, olive, 5Y 4/4, firm.
			65 - 103.5	SAND (SP): Olive, 5Y 4/4, medium dense, fine-grained, well sorted; gradational contact above. At 75 - 80 feet, trace silt lenses, dark yellowish brown, 10YR 4/6, and olive-yellow, 5Y 6/6, stiff. At 80 - 85 feet, occasional silty sand zones.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-19 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-11
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 126 feet	NA	NA	65 - 103.5	SAND (SP): (continued) At 85 - 90 feet, trace gravel; fine- to coarse-grained, angular. At 90 - 95 feet, trace cemented zones. At 95 feet, no silt; grades olive, 5Y 4/4, medium dense, fine-grained, well sorted, angular to subangular; trace cemented zones.
			103.5 - 113	FOSSILIFEROUS SAND (SP/SW): Olive, 5Y 5/3, to light olive-brown, 2.5Y 5/4, cemented, medium to coarse-grained, poor to moderately sorted; fossils comprised of bivalves, oyster shells, cream, brown and white colored, fragmented and whole, moderately weathered; grades with depth to olive, 5Y 5/6, to olive-yellow, 2.5Y 6/6, with some yellowish brown, 10YR 6/6. At 109 feet, some fine sand and some fine gravel.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-19 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-11
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 126 feet	NA	NA	113 - 114.5	SANDY SILT (ML) AND SILTY SAND (SM): Olive, 5Y 5/3, firm to stiff, slightly plastic; silty sand is very dense, fine- to coarse-grained; some shells and some clay.
			114.5 - 124.5	FOSSILIFEROUS SAND (SP/SW): Olive, 5Y 5/3 to 5Y 5/4, slightly cemented, fine- to medium-grained, moderately to poorly sorted, angular; fossils comprised of fragmented shells, moderately weathered. At 119 feet, fine- to coarse-grained, poorly sorted; predominantly fine, moderately cemented; some clayey silt (ML), dark gray, 5Y 4/1, very stiff, moderately plastic.
			124.5 - 126	FOSSILIFEROUS SANDY SILT: Olive, 5Y 5/3, stiff to hard; some dark gray clayey silt.

TOTAL DEPTH OF BOREHOLE: 126 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-20

LITHOLOGIC LOG FOR MONITOR WELL BF-12

Dates: November 29-30, 1989
Weather: Cool mornings, warm afternoons; sunny with occasional westerly breezes
Drill Rig: Gardner Denver 1000
Sample Method: No samples collected
Location: Linley Avenue, east of Doble Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 120	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-13.

TOTAL DEPTH OF BOREHOLE: 120 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-21

LITHOLOGIC LOG FOR MONITOR WELL BF-13

Dates: October 31 - November 1, 1989
Weather: Cool mornings, warm afternoons, sunny, occasional westerly breezes in the afternoons
Drill Rig: Gardner Denver 1000
Sample Method: No samples collected
Location: Del Amo Boulevard, east of New Hampshire Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 138	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-9.

TOTAL DEPTH OF BOREHOLE: 138 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-22

LITHOLOGIC LOG FOR MONITOR WELL BF-14

Dates: October 2-4, 1989
Weather: Generally cool and overcast mornings; warm, sunny with predominantly westerly breezes in afternoon
Drill Rig: Gardner Denver 1000
Sample Method: No samples collected
Location: Budlong Avenue, north of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 121.6	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-11.

TOTAL DEPTH OF BOREHOLE: 121.6 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-23

LITHOLOGIC LOG FOR MONITOR WELL BF-15

Dates: October 10, 1989
Weather: Overcast, warm
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings
Location: Milton Street, east of Kenwood Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 68 feet	NA	NA	0 - 68	No samples collected for lithologic logging. Refer to lithologic log for monitor well MW-24.
Mud Rotary Cuttings collected at 5-foot intervals 68 - 113 feet			68 - 73	INTERBEDDED SILT (ML) AND SANDY SILT (ML): Silt is olive, 5Y 5/3, firm; trace clay, nonplastic; sandy silt is blue-gray, firm to stiff, nonplastic; sand is fine-grained, well sorted; trace rust-orange staining. At 71 feet, sand lens, less than .05 feet thick.
			73 - 75	SANDY SILT (ML): Blue-gray, firm to stiff, nonplastic.
			75 - 76	INTERBEDDED SILTY SAND (SM) AND SAND (SP): Olive, 5Y 5/6, medium dense to dense, fine-grained, moderately sorted; some medium-grained sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-23 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-15
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 68 - 113 feet	NA	NA	76 - 78	SILTY SAND (SM): Blue-gray, very dense, fine-grained, well sorted; some sandy silt inter beds, very stiff, nonplastic.
			78 - 79	SILTY SAND (SM): Same as 76 - 78 except no sandy silt interbeds.
			79 - 79.5	SILT (ML): Blue-gray, very stiff to hard, nonplastic.
			79.5 - 80	FOSSILIFEROUS SAND (SP): Olive-gray, 5Y 5/2, to olive, 5Y 5/4, very dense, fine-grained, well sorted, subangular; fossils are bivalves, white and brown, nonweathered to slightly weathered; some olive silt.
			80 - 85	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, very dense to cemented, fine-grained, well sorted; fossils comprised of bivalve shells, moderately to slightly weathered. At 82 feet, clayey silt interbeds, less than 0.5 feet thick, blue-gray, firm, slightly plastic; occasional clay lenses, olive, 5Y 5/3; soft, moderately plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-23 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-15
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 68 - 113 feet	NA	NA	80 - 85	FOSSILIFEROUS SAND (SP): (continued) At 83 feet, fewer shells.
			85 - 91	SAND (SP): Olive, 5Y 5/3, very dense, fine-grained, well sorted, angular to subangular, some muscovite flakes; trace shells.
			91.5 - 99	SAND (SW): Light brownish gray, 2.5Y 6/2, fine-grained, well sorted; most of the returns go through 1/16-inch sieve.
			99 - 102.5	SAND (SP): Light olive-brown, 2.5Y 5/6, cemented, very fine- to medium-grained, well graded, cemented, subrounded, predominantly quartz, multicolored grains.
			102.5 - 105	FOSSILIFEROUS SAND: Yellow, 2.5Y 7/6, fine-grained, moderately cemented, fine- to medium-grained, coarse grains are shell fragments, medium sand is well rounded; fossils comprise white bivalve shell fragments, slightly weathered; cuttings include dark bands of well-cemented, fine-grained sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-23 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-15
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 68 - 113 feet	NA	NA	105 - 111.5	SAND (SP): Light brownish gray, 2.5Y 6/2, very dense, fine- to medium-grained, poorly sorted; medium sand subrounded to well rounded; minor light gray cemented sand fragments; trace shell fragments.
			111.5 - 113	SANDY SILT/CLAYEY SILT WITH SAND (SM): Olive-yellow, 5Y 6/6, slightly plastic; sand loose, fine-grained.

TOTAL DEPTH OF BOREHOLE: 113 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-24

LITHOLOGIC LOG FOR MONITOR WELL BF-16

Dates: December 14-16, 1989
Weather: Cool, clear mornings, sunny, clear and warm afternoons, occasional breezes
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings, 5-1/2-inch drag bit
Location: On Budlong Avenue, immediately north of 212th Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 130 feet	NA	NA	0 - 5	SILTY CLAY (CL): Brown, 10YR 4/3, slightly moist, stiff, plastic, cohesive; trace mica.
			5 - 20	SILTY CLAY (CL): Olive-brown, 2.5Y 4/4, stiff, plastic, cohesive, trace mica.
				At 15 feet, firm.
			20 - 25	CLAYEY SILT (ML): Dark, yellowish brown, 10YR 4/4, soft, slightly plastic, cohesive; trace mica; some fine-grained sand throughout.
			25 - 30	SILTY CLAY (CL): Brown, 10YR 5/3, moderately plastic, cohesive; trace mica; some fine-grained sand throughout.
			30 - 35	SILTY CLAY (CL): Light olive-brown, 2.5Y 5/4, soft, plastic, noncohesive; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-24 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-16
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 130 feet	NA	NA	35 - 40	SILTY CLAY (CL) with SAND (SP) INTERBEDS: Clay is same as 30 - 35; sand is olive-brown, 2.5Y 4/4, fine-grained, micaceous.
			40 - 45	SILTY CLAY (CL): Same as 30 - 35; some of sample was fairly cohesive, micaceous.
			45 - 50	SILTY CLAY (CL): Same as 30 - 35; small amount of fine-grained sand throughout.
			50 - 55	CLAYEY SILT (ML): Olive-gray, 5Y 4/2, firm, slightly plastic, cohesive; trace mica.
			55 - 60	SILTY CLAY (CL) INTERBEDDED WITH SAND (SP): Clay is olive, 5Y 5/4, firm, plastic, cohesive; sand is olive, 5Y 4/3, very fine, micaceous.
			60 - 65	SILTY CLAY(CL) INTERBEDDED WITH SILT (ML) AND SAND (SP): Silty clay is same as 55 - 60; sand is olive-brown, 2.5Y 4/4, very fine, micaceous; silt is light olive-gray, 5Y 6/2, firm, slightly plastic.
			65 - 70	SILTY CLAY (CL) INTERBEDDED WITH SAND (SP) AND SILT (ML): Same as 60 - 65 except more sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-24 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-16
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 130 feet	NA	NA	70 - 80	FOSSILIFEROUS SAND (SP) WITH MINOR SILTY CLAY (CL) INTERBEDS: Sand is light olive-brown, 2.5Y 5/4, fine-grained, very micaceous, oyster shells are fragmented, up to 1/2-inch diameter, cemented with sand; silty clay is light olive-gray, 5Y 6/2, soft, plastic.
			80 - 85	SILTY CLAY (CL): Pale olive, 5Y 6/3, soft, plastic; some mica.
			85 - 90	SAND (SP): Pale olive, 5Y 6/3, fine-grained; some mica.
			90 - 95	SILTY SAND (SM)/SANDY SILT (ML): Light yellowish brown, 2.5Y 6/4, soft, fine-grained, approximately equivalent parts of sand and silt, slightly plastic; some mica.
			95 - 103	INTERBEDDED SILTY SAND (SM), SANDY SILT (ML) AND SILT (ML): Silty sand and sandy silt are same as 90 - 95; silt is light olive-gray, 5Y 6/2, soft, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-24 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-16
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 130 feet	NA	NA	103 - 106	SAND (SP): Brownish yellow, 10YR 6/6, fine- to medium-grained, subangular, some shell fragments up to 1/2-inch diameter, moderate cementation around some shell fragments, orange, red, black, yellow and white grains.
			106 - 110	SILT (ML): Same as 95 - 103.
			110 - 115	FOSSILIFEROUS SAND (SP): Pale olive, 5Y 6/3, fine- to medium-grained, predominantly fine, angular to subangular, shell fragments up to 1-inch diameter, moderate cementation; trace mica.
			115 - 119	FOSSILIFEROUS SAND (SP): Same as 110 - 115 except pale yellow, 5Y 7/3.
			119 - 123	INTERBEDDED SILTY SAND (SM) AND SAND (SP): Silty sand is pale yellow, 5Y 7/3, extensive orange oxidation, fine-grained, with trace medium-grained; sand same as 115 - 119.
			123 - 125	INTERBEDDED SAND (SP), SILTY SAND (SM) AND SILT (ML): Silty sand is pale yellow, 5Y 7/3, extensive orange oxidation, fine-grained with trace medium-grained sand; silt is light olive-gray, 5Y 6/2, soft, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-24 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-16
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 130 feet	NA	NA	125 - 130	SILTY SAND (SM) AND SAND (SP): Same as 123 - 125 except silty sand is predominant and no silt.

TOTAL DEPTH OF BOREHOLE: 130 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-25

LITHOLOGIC LOG FOR MONITOR WELL BF-17

Dates: December 17-18, 1989
Weather: Cool, clear mornings, sunny, clear and warm afternoons
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings, 5-1/2-inch drag bit
Location: On New Hampshire Avenue, approximately 1/8 mile south of Torrance Boulevard

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 124 feet	NA	NA	0 - 5	CLAYEY SILT (ML): Brown, 10YR 5/3, slightly moist, soft, noncohesive, slightly plastic; trace mica.
			15 - 20	SILTY CLAY (CL): Light olive-brown, 2.5Y 5/4, firm, cohesive, plastic; trace mica.
			20 - 60	CLAYEY SILT (ML)/SILTY CLAY (CL): Soil has two distinguishable colors, yellowish brown, 10YR 5/4, and pale olive, 5Y 6/3, firm, semi-cohesive, slightly plastic to plastic; trace mica; trace fine sand. At 24 - 40 feet, increase in clayey silt, decrease in firmness. At 40 - 45 feet, soft to firm.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-25 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-17
Page 2

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 124 feet	NA	NA	20 - 60	CLAYEY SILT (ML)/SILTY CLAY (CL): (continued) At 45 - 50 feet, soft to stiff. At 50 - 60 feet, predominantly pale olive, firm to stiff.
			60 - 65	SILTY CLAY (CL) AND CLAYEY SILT (ML) WITH SAND (SP) INTERBEDS: Clay is pale olive, 5Y 6/3, stiff, plastic; silt is brown, 10YR 5/3, firm, slightly plastic; sand is light olive-brown, 2.5Y 5/4, fine-grained, micaceous.
			65 - 70	SANDY SILT (ML)/CLAYEY SILT (ML) WITH SAND (SP) INTERBEDS: Pale olive, 5Y 6/3, firm to stiff, slightly plastic; sand is olive-gray, 5Y 5/2, micaceous.
			70 - 75	SANDY SILT (ML) WITH SAND (SP) INTERBEDS: Same as 65 - 70 except silt is very soft to soft; trace clay.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-25 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-17
Page 3

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 124 feet	NA	NA	75 - 80	CLAYEY SILT (ML) WITH SANDY SILT (ML) AND SAND (SP) INTERBEDS: Clayey silt is same as 65 - 70, soft to firm; sandy silt is almost silty sand, same as 65 - 70; sand is olive, 5Y 5/3, fine-grained, micaceous.
			80 - 85	SAND (SP): Olive, 5Y 5/2, fine-grained, micaceous, stringers of clayey silt.
			85 - 90	SAND (SP): Same as 80 - 85.
			90 - 95	SILTY SAND (SM): Olive, 5Y 5/3, fine- to medium-grained, micaceous.
			95 - 100	SAND (SP) WITH MINOR SILTY SAND (SM) INTERBEDS: Sand is light olive-gray, 5Y 6/2, medium to coarse, angular, multicolored orange, black and white grains, micaceous; silty sand is same as 90 - 95.
			100 - 105	FOSSILIFEROUS SAND (SP): Light olive-brown, 2.5Y 5/4, loose to very loose, medium to coarse, angular, multicolored, same as 95 - 100, shell fragments up to 1/2-inch diameter.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-25 (continued)
LITHOLOGIC LOG FOR MONITOR WELL BF-17
Page 4

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 0 - 124 feet	NA	NA	105 - 110	FOSSILIFEROUS SAND (SP) WITH SILTY SAND (SM) INTERBEDS: Fossiliferous sand is same as 100 - 105, fine to medium; silty sand is pale olive, 5Y 6/3, nonfossiliferous, moderately dense, fine-grained, micaceous.
			110 - 124	FOSSILIFEROUS SAND (SP): Light olive-brown, 2.5Y 5/4, fine-grained, grain size decreasing with depth, shells are fragmented up to 1/2-inch diameter, cementation.

TOTAL DEPTH OF BOREHOLE: 124 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-26

LITHOLOGIC LOG FOR MONITOR WELL G-8

Dates: December 11-13, 1989
Weather: Cool, overcast mornings, warm, clear afternoons
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings, 5-1/2-inch drag bit, and 3-foot continuous core using pitcher sampler
Location: Milton Street, east of Kenwood Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 103 feet	NA	NA	0 - 103	No samples collected; refer to lithologic log for monitor wells MW-24 and BF-15.
Pitcher Core Sampler 103 - 106 feet	R = 1.3/3.0	NA	103 - 104.3	SILTY SAND (SM): Light olive-brown, 2.5Y 5/4, fine- to medium-grained, well sorted, medium, sand, well rounded, mostly yellow quartz.
Mud Rotary Cuttings collected at 5-foot intervals 106 - 130 feet	NA	NA	106 - 114	No samples collected; refer to lithologic log for monitor well BF-15.
			114 - 120	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/4, dense, fine-grained, nonplastic, medium to coarse cemented sand fragments.
			120 - 123	FOSSILIFEROUS SAND (SP): Same as 114 - 120 except moderately dense, finer-grained sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-26 (continued)
LITHOLOGIC LOG FOR MONITOR WELL G-8
Page 2

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 106 - 130 feet	NA	NA	123 - 125	CLAYEY SILT (ML): Olive, 5Y 5/6, firm, fissile, slightly plastic; trace sand, getting darker, abundant shell fragments possibly from 120 - 123.
			125 - 130	SILTY CLAY (CL) INTERBEDDED WITH CLAYEY SILT (ML): Gray-green, 5Y 5/1, slightly dense, very plastic, some cemented sand fragments and shells, may be from above interval; clayey silt is same as 123 - 125. At 130 feet, very firm, stiff clay.
Pitcher Core Sampler 130 - 133 feet	R = 3.0/3.0		130 - 133	CLAY (CL): Dark gray, 5Y 4/1, dense, very firm, nonplastic; trace mica; trace fine sand. At 133 feet, sandy clay.
Mud Rotary Cuttings collected at 5-foot intervals 133 - 178 feet	NA	NA	133 - 181	SAND (SP): Blue-gray, 5Y 4/1, dense, fine-grained, nonplastic, micaceous. At 138 feet, some silt. At 150 - 155 feet, trace shell fragments.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-26 (continued)
LITHOLOGIC LOG FOR MONITOR WELL G-8
Page 3

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings 133 - 178 feet	NA	NA		SAND (SP): (continued) At 155 - 160 feet, some black organic matter. At 160 - 165 feet, grain size decreasing, sand, abundant wood fragments; sand is moderately cemented. At 165 - 181 feet, very dark gray, abundant shell fragments; sand is moderately cemented.

TOTAL DEPTH OF BOREHOLE: 181.0 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-27

LITHOLOGIC LOG FOR MONITOR WELL G-9

Dates: December 2-5, 1989
Weather: Cool mornings, warm afternoons, sunny, occasional westerly breezes
Drill Rig: Gardner Denver 1000
Sample Method: Pitcher core samples
Location: New Hampshire Avenue, south of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 213	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-12.

TOTAL DEPTH OF BOREHOLE: 213 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-28

LITHOLOGIC LOG FOR MONITOR WELL G-11

Dates: November 2-5, 1989
Weather: Cool mornings, warm afternoons, sunny with occasional westerly breezes
Drill Rig: Gardner Denver 1000
Sample Method: No samples collected
Location: Del Amo Boulevard, east of New Hampshire Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 217.5	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-9.

TOTAL DEPTH OF BOREHOLE: 217.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-29

LITHOLOGIC LOG FOR MONITOR WELL G-12

Dates: October 20, 1989
Weather: Overcast, cool morning; sunny to partly cloudy warm afternoon with moderate westerly winds
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings
Location: Catalina Avenue, south of 204th Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 154 feet	NA	NA	0 - 154	No samples collected for lithologic logging due to circulation loss between 5 and 40 feet below land surface.
Mud Rotary Cuttings collected at 5-foot intervals 154 - 197 feet	NA	NA	154 - 181	SAND (SP): Blue-gray, 2.5Y 5/0, moderately dense, fine-grained, some clayey silt.
				At 164 - 170 feet, some medium sand.
				At 170 - 175 feet, increased dark sand; trace mica.
				At 179 feet, abundant shell fragments.
			181 - 183	SAND (SP): Dark gray, cemented, moderately dense, predominantly fine-grained, some medium- to coarse-grained, subrounded, abundant shell fragments.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-29 (continued)
LITHOLOGIC LOG FOR MONITOR WELL G-12
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 154 - 197 feet	NA	NA	183 - 197	SAND (SP): Dark blue-gray, 2.5Y 4/0, moderately dense, predominantly fine-grained, some medium-grained, abundant coarse shell fragments and platey organic matter with wood chips. At 184 - 190 feet, increased medium sand. At 193 feet, moderately cemented interval. At 195 feet, moderately cemented interval, abundant shells.

TOTAL DEPTH OF BOREHOLE: 197 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-30

LITHOLOGIC LOG FOR MONITOR WELL G-13

Dates: October 5-7, 1989
Weather: Sunny, warm, calm in morning; slight to moderate westerly breeze in afternoon
Drill Rig: Gardner Denver 1000
Sample Method: Pitcher core sampler
Location: Budlong Avenue, north of Milton Street

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling			0 - 197	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-11.

TOTAL DEPTH OF BOREHOLE: 197 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31

LITHOLOGIC LOG FOR MONITOR WELL LW-1

Date: August 20-23, 1989
Weather: Overcast, cool mornings; sunny to partly cloudy warm afternoons with moderate westerly winds
Drill rig: Ingersoll-Rand TH-100
Sample method: Mud rotary cuttings and wireline core
Location: On-property

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 55 feet			0 - 55	No samples collected for lithologic logging. Refer to lithologic log for monitor well LG-2.
Wireline Core 54.4 - 59.4 feet	R = 1.0/5.0	56/1.0	55.1 - 56.1	SAND (SP): Interbedded, .1 to .2 feet thick, olive-brown, 2.5Y 4/4, and olive-gray, 5Y 4/2, wet, medium dense to dense, fine-grained, well sorted, subangular to subrounded.
Wireline Core 59.4 - 64.4 feet	R = 1.8/5.0	60/2.0 60.4/2.0 60.8/2.0	59.4 - 62.2	SAND (SP): Same as 55.1 - 56.1; with fine orange lens, less than .01 feet thick. At 60.35 feet, two fine silt lenses, .02 and .03 feet thick.
Wireline Core 64.4 - 69.4 feet	R = 1.6/5.0		64.4 - 64.7	SAND (SP): Olive, 5Y 5/3, wet, medium dense to dense, fine- to medium-grained, well sorted, subangular to subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 64.4 - 69.4 feet			64.7 - 64.85	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense to dense, fine-grained, well sorted, subangular to subrounded.
			64.85- 65.0	SAND (SP): Same as 64.4 - 64.7.
			65.0 - 65.2	SILT (ML): Dark yellow-brown, 10YR 4/4, wet, stiff, nonplastic.
			65.2 - 65.6	SAND (SP): Same as 64.4 - 64.7.
Wireline Core 69.4 - 74.4 feet	R = 2.3/5.0	70.1/39 70.5/2.0 71.1/128	69.4 - 71.2	SAND (SP): Dark olive-gray, 5Y 3/2, wet, medium dense to dense, fine-grained, well sorted, subangular to subrounded.
			71.2 - 71.7	INTERBEDDED SILT (ML) AND SANDY SILT (ML): Olive, 5Y 4/4, wet, stiff, nonplastic, interbeds approximately .01 feet thick.
Wireline Core 74.4 - 76.9 feet	R = 1.4/2.5		74.4 - 74.5	SILT (ML): Olive, 5Y 5/4, moist, stiff, nonplastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 74.4 - 76.9 feet	R = 1.4/2.5	74.6/4	74.5 - 74.75	SAND (SP): Olive, 5Y 5/4, wet, loose, fine-grained, well sorted, subangular.
			74.75- 74.9	SANDY SILT (ML): Olive, 5Y 5/4, moist, soft, nonplastic.
			74.9 - 75.0	SAND (SP): Olive-gray, 5Y 4/2, wet, dense, fine-grained, well sorted, subangular to subrounded.
			75.0 - 75.8	SILT (ML): Olive, 5Y 4/3, moist, stiff, non-plastic; with some interbedded sandy zones; with some clay.
Wireline Core 76.9 - 79.4 feet	R = 1.3/2.5	77.0/2	76.9 - 77.9	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, fine, well sorted, subangular to sub-rounded.
			77.9 - 78.2	SANDY SILT (ML): Olive, 5Y 4/3, wet, firm, non-plastic.
Wireline Core 79.4 - 81.0 feet	R = 0.8/2.5	79.5/1	79.4 - 79.75	SAND (SP): Dark olive-gray, 5Y 3/2, wet, medium dense to dense, fine-grained, well sorted, sub-angular to subrounded; with oily sheen at base of unit, .2 feet thick; very odoriferous.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 79.4 - 81.0 feet	R = 0.8/2.5		79.75- 80.2	SANDY SILT (ML): Olive-gray, 5Y 4/2, moist, firm to stiff, nonplastic.
Wireline Core 81.9 - 84.4 feet	R = 1.5/2.5	82.6/4	81.9 - 82.9	FOSSILIFEROUS SILTY SAND (SM): Olive-gray, 5Y 5/2, wet, dense, fine-grained, well sorted, subangular; fossils comprised of bivalves, brown to white, whole and fragmented, 1/2-inch to 2-inch diameter.
		83/34	82.9 - 83.4	SILT (ML): Olive, 5Y 4/3, moist, stiff, slightly plastic, with some clay; grades sandy at bottom, .2 feet thick.
Wireline Core 84.4 - 86.9 feet	R = 2.5/2.5	85/3	84.4 - 86.2	INTERBEDDED SILT (ML) and SANDY SILT (ML): Interbedded colors dark olive-gray, 5Y 3/2, and olive, 5Y 4/4, stiff, nonplastic, beds are .1 to .3 feet thick. At 85.7 feet, fine-grained fossiliferous sand, .3 feet thick.
		86.9/19	86.2 - 86.9	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, fine-grained, well sorted, subrounded.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 86.9 - 91.9 feet	R = 4.6/5.0	87.5/9	86.9 - 87.8	INTERBEDDED SILT (ML), SANDY SILT (ML), AND SILTY SAND (SM): Olive, 5Y 4/4, laminated with olive, 5Y 5/6, moist, stiff, nonplastic; silty sand is .1 feet thick, silt is .2 feet thick; with oily sheen throughout, very odoriferous; silt contains discontinuous sand stringers, .01 to .02 feet thick.
		88.0/4 89.3/16	87.8 - 89.4	SAND (SP): Olive-gray, 5Y 4/2, wet, dense, fine-grained, well sorted, subangular; grades\ silty at bottom, .3 feet thick.
			89.4 - 90.1	INTERBEDDED SILT (ML), SANDY SILT (ML), AND SILTY SAND (SM): Same as 86.9 - 87.8.
		90.9/32	90.1 - 91.2	SAND (SP): Same as 87.8 - 89.4.
			91.2 - 91.5	INTERBEDDED SILT (ML), SANDY SILT (ML), AND SILTY SAND (SM): Same as 86.9 - 87.8.
Wireline Core 91.9 - 96.9 feet	R = 4.5/5.0	93.4/19	91.9 - 94.8	SAND (SP): Same as 87.8 - 89.4. At 94.6 feet, grades silty; with oily sheen above silty zone.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 91.9 - 96.9 feet	R = 4.5/5.0		94.8 - 95.1	CLAYEY SILT (ML): Black, 5Y 2.5/2, moist, stiff to hard, slightly plastic.
		95.3/13 96.1/21	95.1 - 96.4	SAND (SP): Olive, 5Y 5/3, wet, medium dense to dense, fine-grained, well sorted, angular; with sandy silt interbed, .05 feet thick.
Mud Rotary Cuttings collected at 5-foot intervals 96.9 - 248.5 feet	NA	NA	96.9 - 204.5	No samples collected for lithologic logging. Refer to lithologic log for monitor well LG-2.
			204.5 - 209.5	FOSSILIFEROUS SAND (SP) WITH SILTY SAND (SM): Interbeds, blue-gray to very dark gray, 5Y 3/1, dense, fine, well sorted; silty sand is soft to firm.
			209.5 - 219.5	SANDY SILT (ML) AND SILTY SAND (SM): Interbeds, blue-gray and very dark gray, 5Y 3/1, soft; sand is fine, well sorted, with some medium grains.
			219.5 - 222	SILT (ML): Blue-gray to very dark gray, 5Y 3/1, soft to firm; with some sandy silt, firm, fine- to medium-grained, poorly sorted.
			222 - 224	CLAY (CH): Olive-brown, 2.5Y 4/4, moist, firm, moderately plastic; with strong chemical odor; some silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-31 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-1
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 96.9 - 248.5 feet	NA	NA	224 - 224.5	GRAVEL (GP): Cemented, medium- to coarse-grained, poorly sorted, angular to subangular; gravel comprised of sandstone and other sedimentary matrix; with caliche coatings.
			225 - 230	SAND (SP): Dark gray, 2.5Y 4/0, to black, 2.5Y 2/0, very dense, moderately sorted, subangular to subrounded; grains are quartz and other mafics with some feldspars.
			230 - 238.5	SAND (SW): Gray, 7.5YR 5/0, to black, 7.5YR 2/0, dense to cemented, fine- to coarse-grained, poorly sorted, subangular to rounded; fine sands predominantly cemented. At 232 feet, silty zone, less than 1 foot thick.
			238.5 - 248.5	SAND (SW): Gray, 7.5YR 5/0, to black, 7.5YR 2/0, very dense, fine- to coarse-grained, poorly sorted, angular to subrounded; with some gravel, fine- to medium-grained; sand predominantly quartz and feldspar with some mafics.

TOTAL DEPTH OF BOREHOLE: 248.5 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-32

LITHOLOGIC LOG FOR MONITOR WELL LW-2

Dates: August 28-31, 1989
Weather: Warm, hazy sun, winds from west in afternoons
Drill Rig: Ingersoll Rand TH-100
Sample Method: No samples collected
Location: Southern California Edison right-of-way, east of Normandie Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 253	No samples collected for lithologic logging. Refer to lithologic log for exploratory boring EB-4.

TOTAL DEPTH OF BOREHOLE: 253 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-33

LITHOLOGIC LOG FOR MONITOR WELL LW-3

Dates: November 14, 1989
Weather: Hazy, warm, afternoon breezes
Drill Rig: Gardner Denver 1000
Sample Method: Mud rotary cuttings, and pitcher core sampler
Location: Francisco Street, end of cul-de-sac east of Normandie Avenue

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 62 feet	NA	NA	0 - 62	No samples collected for lithologic logging.
Mud Rotary Cuttings collected at 5-foot intervals 62 - 90 feet			62 - 67.5	SANDY CLAYEY SILT (ML): Olive-brown, 2.5Y 4/4, fine-grained sand interbeds, moderately plastic; trace mica.
			67.5 - 88	INTERBEDDED SAND (SP) AND CLAYEY SILT (ML): Grayish brown, 2.5Y 5/2, fine- to medium-grained sand, subangular to subrounded, clay interbeds.
				At 84 feet, sand.
			88 - 90	CLAYEY SILT (ML): Olive, 5Y 5/3, moderately dense, slightly plastic; trace fine-grained sand.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-33 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-3
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Pitcher Core Sampler 90 - 93 feet	R = 1.7/3.0		90 - 93	SANDY CLAYEY SILT (ML): Olive, 5Y 5/4, moderately dense; sand is fine-grained, trace coarse sand up to 1/2-inch diameter, moderately plastic, cohesive, minor oxide staining.
Mud Rotary Cuttings collected at 5-foot intervals 93 - 120 feet	NA	NA	93 - 99	SILTY SAND (SP): Olive, 5Y 5/4, moderately dense, fine-grained, trace coarse sand up to 1-inch diameter.
			99 - 105.5	CLAYEY SANDY SILT (ML): Grayish brown, 2.5Y 5/2, slightly dense, medium- to coarse-grained, subrounded to rounded, clayey silt/silty clay interbeds, moderately plastic.
			105.5 - 120	CLAYEY SILTY SAND (SP) AND SANDY CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/4, to gray, 2.5Y 6/0, moderately dense, moderately plastic, moderately firm, interbedded medium- to coarse-grained sand.
Pitcher Core Sampler 120 - 123 feet	R = 1.5/3.0		120 - 121.5	SILTY SANDY CLAY (CL): Same as 105.5 - 120.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-33 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-3
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 123 - 180 feet	NA	NA	123 - 129	CLAYEY SILTY SAND (SP) AND SANDY CLAYEY SILT (ML): Same as 105.5 - 120.
			129 - 133	FOSSILIFEROUS SILTY SAND (SP): Dark gray, 2.5Y 4/0, moderately dense, fine-grained, with coarse shell fragments up to 1-inch diameter.
			133 - 140	SILTY SANDY CLAY (CL): Dark gray, 2.5Y 4/0, moderately dense, moderately plastic, fine-grained, sand increasing in grain size and percentage with depth, micaceous.
			140 - 147	SILTY SAND (SP): Same as 129 - 133 except without shell fragments.
			147 - 156	INTERBEDDED CLAYEY SILT (ML) AND CLAY (CL): Blue-gray, 2.5Y 4/0, silt is soft to slightly firm, nonplastic, noncohesive; clay is dense, firm, with no sand.
			156 - 180	SAND (SP): Blue-gray, 2.5Y 5/0, fine-grained, micaceous.
Pitcher Core Sampler 180 - 183 feet	R = 1.5/3.0		180 - 181.5	SAND (SP): Same as 156 - 180.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-33 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-3
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 183 - 260 feet	NA	NA	183 - 190	SAND (SP): Same as 156 - 180 except cemented.
			190 - 200	FOSSILIFEROUS SAND (SW): Very dark blue-gray, 2.5Y 3/0, dense, fine-grained, abundant bivalve fragments up to 1-inch diameter.
			200 - 213	SAND (SP): Blue-gray, 2.5Y 5/0, fine-grained, micaceous, slight cementation.
			213 - 217	SILT/SANDY SILT (ML): Dark gray, loose to firm, fine-grained sand, cohesive, minor shell fragments.
			217 - 225	SILT (ML): Dark gray, 2.5Y 3/0, firm, cohesive.
			225 - 236	INTERBEDDED CLAY (CL) AND SILTY CLAY (ML): Blue-gray, 2.5Y 5/4, moderately dense, moderately plastic, cohesive.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-33 (continued)
LITHOLOGIC LOG FOR MONITOR WELL LW-3
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Cuttings collected at 5-foot intervals 190 - 260 feet	NA	NA	236 - 260	SAND (SW): Dark gray, 2.5Y 4/0, moderately dense, fine- to medium-grained, abundant wood fragments, some sandy clay interbeds.

TOTAL DEPTH OF BOREHOLE: 260 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**Organic vapor analyzer (OVA) readings in parts per million (ppm) of soil collected at depth indicated, in feet. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34

LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1

Date: September 19-22, 1989
Weather: Cloudy in mornings, moderate to strong breezes in afternoons
Drill Rig: Ingersoll-Rand TH-100
Sample method: Continuous core barrel
Location: On-property, central processing area

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling 0 - 54.2 feet	NA	NA		No samples collected for lithologic logging. Refer to lithologic log for soil boring S301.
Wireline Core 54.2 - 59.2 feet	R = 4.6/5.0	54.3-55.3/450	54.2 - 58.6	SAND (SP): Olive-brown, 2.5Y 4/4, wet, loose to medium dense, fine-grained, well sorted.
		55.3-56.3/550		At 54.2 - 57.8 feet, oily sheen.
		56.3-57.3/500		At 56.4 feet, silt lens, 0.1 feet thick, hard, friable.
		57.3-58.3/480 58.3-58.8/460		At 57.2-58.6 feet, light olive-brown, 2.5Y 5/6. At 57.7 feet, silt lens, 0.05 feet thick, same as 56.4.
Wireline Core 59.2 - 64.2 feet	R = 4.8/5.0	59.3-60.3/500 60.3-61.3/510 61.3-62.3/480	59.2 - 62.6	SAND (SP): Dark grayish brown, 2.5Y 4/2, very wet, loose to medium dense, fine-grained, well sorted, trace mica. At 59.2 - 60.6 feet, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 2

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 59.2 - 64.2 feet	R = 4.8/5.0		59.2 - 62.6	SAND (SP): (continued) At 60.6 - 61.1 feet, slight oily sheen. At 61.1 feet, orange colored laminations, 0.15 feet thick. At 61.1 - 62.6 feet, oily sheen.
		62.3-63.3/500	62.6 - 62.9	INTERBEDDED SILT (ML) AND SAND (SP) LAMINATIONS: Silt is orange yellowish brown, 10YR 5/8, hard, friable; sand is dark gray-brown, 2.5Y 4/2, very wet, loose to medium dense, fine-grained, well sorted; trace mica.
		63.3-63.8/490	62.9 - 64.0	SAND (SP): Olive-gray, 5Y 4/2, damp to moist, loose to medium dense, fine-grained, well sorted. At 62.9 - 63.8 feet, light oily sheen. At 63.7 feet, grades orange-stained, then grades orange-yellow brown, 10YR 4/6.
Wireline Core 64.2 - 69.2 feet	R = 4.2/5.0	64.3-65.3/460	64.2 - 65.5	SAND (SP): Light olive-brown, 2.5Y 5/6, chemical staining, wet, loose, fine-grained, well sorted, subangular to angular; trace mica, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 3

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 64.2 - 69.2 feet	R = 4.2/5.0		64.2 - 65.5	SAND (SP): (continued) At 64.9 - 65.0 feet, no oily sheen. At 64.7 feet, silt gravel piece, 0.07-foot diameter. At 64.9 feet, silt lens, 0.1 feet thick, hard, discontinuous across core barrel. At 65.1 feet, silt lens, 0.08 feet thick, discontinuous across core barrel. NOTE: Sample from 65.9-68.4 feet slid out of core barrel and exact depths are uncertain in this interval. However, the lithology is described here with some confidence.
		65.3-66.3/500	65.5 - 65.9	SILTY (ML) WITH SAND (SP) INTERBEDS: Silt is olive, 5Y 4/4, with bright yellow-orange staining, stiff; sand is same as 64.2 - 65.5. At 65.6 feet, sand lens, 0.05 feet thick, same as 64.2 -65.5.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 4

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 64.2 - 69.2 feet	R = 4.2/5.0	66.3-67.3/230	65.9 - 68.1	SAND (SP): Dark olive-gray, 5Y 3/2, very moist, loose to medium dense, fine-grained, well sorted, subangular.
				At 65.9 - 67.3 feet, slight oily sheen.
		67.3-68.3/95		At 67.3 - 68.1 feet, wet, oily sheen.
				At 67.3 feet, silt gravel piece, 0.08 feet in diameter, hard.
			68.1 - 68.4	SILT (ML) WITH SAND (SP) INTERBEDS: Same as 65.5 - 65.9 except sand lenses 0.02 - 0.03 feet thick.
Wireline Core 69.2 - 74.2 feet	R = 4.9/5.0	69.3-70.3/480	69.2 - 71.2	SAND (SP): Same as 65.9 - 68.1 except wet, oily sheen, chemical staining.
		70.3-71.3/500	71.2 - 71.6	SILT (ML) WITH SANDY SILT (ML) INTERBEDS: Olive-gray, 5Y 4/2, to yellow-brown, 10YR 5/6, stiff, trace clay.
		71.3-72.3/480	71.6 - 72.6	SAND (SP): Same as 65.9 - 68.1 except occasional orange stained zones, wet, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 5

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 69.2 - 74.2 feet	R = 4.9/5.0	72.3-73.3/520	72.6 - 72.7	SILT (ML): Olive, 5Y 4/4, damp, very stiff, moderate oily sheen.
		73.3-74.1/500	72.7 - 74.1	SAND (SP): Pale olive, 5Y 6/4, to dark olive-gray, 5Y 3/2, wet, slightly dense, fine- to medium-grained, well sorted, subangular, distinct oily sheen; trace mica.
				At 74.0 - 74.1 feet, silt laminations, 0.01 - 0.03 feet thick, olive, 5Y 4/3, abundant rust-red staining, moist, firm.
Wireline Core 74.2 - 79.2 feet	R = 3.6/5.0	74.3-75.3/480	74.1 - 74.7	SILT (ML): Olive, 5Y 5/4, occasional orange laminations less than 0.01 feet thick, very moist, firm, oily sheen; some clay; trace sand.
			74.7 - 74.9	SAND (SP): Dark olive-gray, 5Y 3/2, wet, medium dense, fine-grained, well sorted, saturated with oily fluid; trace mica.
			74.9 - 75.3	SILT (ML): Same as 74.1 - 74.7.
		75.3-76.3/490	75.3 - 75.6	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, medium- to fine-grained, well sorted, oily.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 6

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 74.2 - 79.2 feet	R = 3.6/5.0		75.3 - 75.6	SAND (ML): (continued) At 75.4 feet, silt lens, 0.05 feet thick, hard.
			75.6 - 76.0	INTERBEDDED SAND (SP) AND SILT (ML): Sand is olive, 5Y 4/3, moist, medium dense, well sorted, moderate oily sheen; silt is olive, 5Y 5/3, damp to moist, soft to firm.
		76.3-77.3/190 77.3-77.8/500	76.0 - 77.8	SILT (ML): Olive-gray, 5Y 4/2, to olive, 5Y 4/3, damp to moist, firm, some sandy zones, occasional trace shell fragments.
Wireline Core 79.2 - 84.2 feet	R = 4.8/5.0		79.2 - 79.4	SILT (ML): Same as 76.0 - 77.8.
		80.2/520	79.4 - 81.0	SAND (SP): Very dark gray, 5Y 3/1, wet, loose to medium dense, fine-grained, well sorted, distinct oily sheen. At 80.5 and 80.8 feet, trace silt zones, less than 0.02 feet thick.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 7

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 79.2 - 84.2 feet	R = 4.8/5.0	81.4/200	81.0 - 81.5	SILT (ML) WITH SILTY SAND (SM) INTERBEDS: Olive, 5Y 4/3, to dark olive-gray, 5Y 3/2; silt is moist to very damp, firm; silty sand is wet to very moist, dense, fine-grained, well sorted.
		82.5/190	81.5 - 82.9	SILT (ML): Olive, 5Y 4/4, damp, firm to stiff, some sandy silt zones. At 82.7 feet, grades slightly yellowish to olive, 5Y 5/5, slightly damp.
		83.8/560	82.9 - 84.0	FOSSILIFEROUS SAND (SP): Olive-gray, 5Y 5/2, to olive, 5Y 5/3, occasional orange staining, wet, dense, fine-grained, some medium-grained, well sorted, subangular to angular, fossils are white, cream, brown bivalves, predominantly fragmented, some whole up to 0.08 feet in diameter, slightly weathered, some silt, distinct oily sheen. At 83.4 feet, no fossils, 0.3 feet thick.
Wireline Core 84.2 - 89.2 feet	R = 4.2/5.0	84.3-85.3/530 85.3-86.3/520	84.2 - 87.0	FOSSILIFEROUS SAND (SP): Same as 82.9 - 84.0 except very wet, dense to very dense, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 84.2 - 89.2 feet	R = 4.2/5.0		84.2 - 87.0	FOSSILIFERROUS SAND (SP): (continued)
				At 85.3 feet, slightly cemented, 0.1 feet thick.
		86.3-87.3/520		At 86.3 feet, sandy fossils, 0.2 feet thick, bivalves, slightly weathered, predominantly fragments, up to 0.15 feet in diameter.
		87.3-87.8/500	87.0 - 88.4	SAND (SP): Olive, 5Y 4/3, thin orange and red laminations, wet, medium dense to dense, fine-grained, well sorted, subangular; trace mica flakes; occasional trace shell fragments; occasional silty sand lenses, 0.05 to 0.1 feet thick, oily sheen.
Wireline Core 89.2 - 93.8 feet	R = 4.0/4.5	NA	89.3 - 89.5	CLAYEY SILT (ML): Olive, 5Y 4/3, moist, soft to firm; trace orange sand inclusions.
			89.5 - 89.6	SAND (SP): Olive-gray, 5Y 4/2, to dark gray, 5Y 4/1, very moist to wet, dense, fine-grained, well sorted, very slight oily sheen; trace mica.
			89.6 - 89.75	CLAYEY SILT (ML): Same as 89.3 - 89.5.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
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DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 89.3 - 93.8 feet	R = 4.0/4.5		89.75- 89.8	SAND (SP): Dark gray, 5Y 4/1, wet, dense, fine-grained, well sorted, trace mica, moderate oily sheen, white precipitate evident when sample dries.
			89.8 - 90.9	CLAYEY SILT (ML): Same as 89.3 - 89.5 except trace sand.
				At 90.4 feet, sandy zones, 0.04 - 0.07 feet thick.
				At 90.8 feet, thin orange colored laminations, less than 0.02 feet thick.
			90.9 - 91.8	SILTY SAND (SM): Olive-gray, 5Y 4/2, very moist, very dense to dense, fine-grained, well sorted, slight oily sheen; trace mica.
			91.8 - 92.2	SILT (ML): Olive, 5Y 5/4, damp, stiff; some clay; trace fine sand.
			92.2 - 92.5	SAND (SP): Olive-gray, 5Y 4/2, very moist, medium dense to dense, fine-grained, well sorted, slight oily sheen; trace mica.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1
Page 10

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 89.3 - 93.8 feet	R = 4.0/4.5		92.5 - 93.3	CLAYEY SILT (ML): Olive, 5Y 5/3, damp, stiff to very stiff, occasional discontinuous sand lenses, 0.02 - 0.08 feet thick; sand is gray, 5Y 5/1, some orange staining, fine- to medium-grained, well sorted.
Wireline Core 93.8 - 98.8 feet	R = 5.0/5.0		93.8 - 97.9	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, to olive-gray, 5Y 5/2, wet, moderately dense to dense, fine-grained, well sorted, shells are mostly fragmented bivalves, some whole, up to 0.13 feet in diameter, slightly weathered, white, cream, and brown colored, none to slightly oily sheen. At 93.8 feet, some medium-grained sand. At 95.7 feet, no medium-grained sand. At 96.9 feet, orange rust stained inclusions. At 97.3 feet, trace silt.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-34 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-1

DRILLING/SAMPLING METHOD	RECOVERY[1]	OVA[2] (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 93.8 - 98.8 feet	R = 5.0/5.0		97.9 - 98.8	SAND (SP): Olive, 5Y 5/4, wet, very dense, fine-grained, well sorted, subangular. At 98.1 feet, some cemented sand.

TOTAL DEPTH OF BOREHOLE: 98.8 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35

LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2

Date: September 12-16, 1989
Weather: Cloudy in mornings, moderate to strong breezes in afternoon, 75-80°F
Drill Rig: Ingersoll-Rand TH-100
Sample method: Mud rotary wireline core, 5-1/2-inch OD core barrel
Location: On-property, central processing area

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 54.1	No samples collected for lithologic logging. Refer to lithologic log for soil boring S301.
Wireline Core 54.1 - 59.3 feet	R = 3.5/5.2	54.3-55.3/2 55.3-56.3/1 56.3-57.3/1	54.1 - 57.6	SAND (SP): Light olive-brown, 2.5Y 5/6, moist, medium dense, fine-grained, 56.8 - 56.9 is an orange oxidation layer. At 57.2 - 57.4 feet, wet, micaceous.
Wireline Core 59.3 - 64.3 feet	R = 5.0/5.0	59.3-60.3/70	59.3 - 62.0	SAND (SP): Olive, 5Y 4/4, wet, some orange oxidation coloring, fine-grained, micaceous. At 59.3 - 59.8 feet, moist. At 59.8 - 60.3 feet, oily sheen.
		60.3-61.3/200		At 60.4 - 60.5 feet, clayey silt, light olive-brown, 2.5Y 5/4, very stiff, dry, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 59.3 - 64.3 feet	R = 5.0/5.0	61.3-62.3/550	62.0 - 62.2	INTERBEDDED SAND (SP) AND SANDY SILT (ML): Sand is same as 59.3 - 62.0; silt is olive-brown, 2.5Y 4/4, damp, stiff, colored with orange oxidation, micaceous, layers are approximately 0.01 inch thick, oily sheen.
		62.3-63.3/550	62.2 - 63.8	SAND (SP): Same as 59.3 - 62.0 with oxidation coloration.
				At 63.4 - 63.8 feet, oily sheen.
		63.3-64.3/550	63.8 - 64.1	CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/4, damp, firm, slightly plastic.
			64.1 - 65.2	SAND (SP): Same as 59.3 - 62.0.
				At 64.7 - 65.2 feet, oily sheen, more distinctive with depth.
Wireline Core 64.3 - 69.3 feet	R = 4.6/5.0	64.3-65.3/550	65.2 - 65.3	CLAYEY SILT (ML): Olive, 5Y 4/4, damp, stiff, orange oxidation coloring throughout.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 64.3 - 69.3 feet	R = 4.6/5.0	65.3-66.3/550	65.3 - 68.9	SAND (SP): Same as 59.3 - 62.0 except grading to a finer sand, moist, without oily sheen.
		66.3-67.3/550		At 66.7 feet, clayey silt; same as 65.2 - 65.3, 0.01 feet thick.
		67.3-68.3/500 68.3-69.3/580		
Wireline Core 69.3 - 74.3 feet	R = 5.0/5.0	69.3-70.3/550	69.3 - 70.1	SAND (SP): Olive-gray, 5Y 4/2, wet, medium dense, fine-grained.
		70.3-71.3/550	70.1 - 71.5	SAND (SP): Same as 69.3 - 70.1 except fine- to medium-grained. At 70.4 - 71.5 feet, oily sheen. At 71.1 - 71.5 feet, banded, thin orange oxidation layers.
			71.5 - 71.9	SILTY CLAY (CL) INTERBEDDED WITH CLAYEY SILT (ML): Olive, 5Y 4/4, damp, stiff, thin bands of orange oxidation; clayey silt is slightly plastic; silty clay is moderately plastic.
		71.3-72.3/120	71.9 - 72.5	SAND (SP): Dark gray, 5Y 4/1, wet, medium dense, fine-grained, distinct oily sheen throughout.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 69.3 - 74.3 feet	R = 5.0/5.0	72.3-73.3/500	72.5 - 73.4	INTERBEDDED CLAYEY SILT (ML) AND SAND (SP): Sand is same as 69.3 - 70.1 except fine- to medium-grained; silt is olive-brown, 2.5Y 4/4, damp to moist, dense, slightly plastic; some oxidation bands throughout.
		73.3-74.3/500	73.4 - 74.3	SAND (SP): Same as 69.3 - 70.1 except fine- to medium-grained.
Wireline Core 74.3 - 79.3 feet	R = 5.0/5.0	74.3-75.3/500	74.3 - 74.9	SAND (SP): Light olive-brown, 2.5Y 5/4, moist, medium dense, fine-grained.
				At 74.7 feet, oxidation coloring, micaceous, oily sheen throughout.
			74.9 - 75.2	CLAYEY SILT (ML): Light olive-brown, 2.5 Y 5/4, moist, dense, slightly plastic.
Wireline Core 74.3 - 79.3 feet	R = 5.0/5.0		75.2 - 75.5	SAND (SP): Same as 74.3 - 74.9 except finer-grained, bands of orange oxidation throughout, oily sheen throughout.
		75.3-76.3/480	75.5 - 75.9	CLAYEY SILT TO VERY CLAYEY SILT (ML): Olive, 5Y 5/3, damp, stiff, slightly plastic.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 74.3 - 79.3 feet	R = 5.0/5.0		75.9 - 76.3	SAND (SP): Same as 74.3 - 74.9 except without oxidation and finer grained, oily sheen throughout, oily sheen is more distinctive than above layers.
				At 76.1 feet, clayey silt, same as 75.5 - 75.9, .05 feet thick.
		76.3-77.3/100	76.3 - 76.4	SILT (ML): Olive, 5Y 4/4, damp, stiff.
			76.4 - 76.5	SILTY SAND (SM): Olive, 5Y 4/4, moist, medium dense, fine-grained, oily sheen throughout, more distinct than 75.9 - 76.3.
			76.5 - 77.8	SILT (ML): Same as 76.3 - 76.4
		77.3-78.3/120 78.3-79.3/550	77.8 - 79.3	SAND (SP): Same as 74.3 - 74.9, except finer grained without oily sheen and without oxidation coloring.
Wireline Core 79.3 - 83.9 feet	R = 4.6/5.0	79.3-80.3/7	79.3 - 79.4	SAND (SP): Olive, 5Y 5/4, moist, medium dense, fine-grained.
				At 79.4 feet, fragmented oyster shells up to 1/4-inch diameter.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 79.3 - 83.9 feet	R = 4.6/5.0		79.4 - 79.5	SILTY SAND (SM): Olive, 5Y 5/3, moist, medium dense to dense, fine-grained.
			79.5 - 79.8	SAND (SP): Same as 79.3 - 79.4 except some vertical oxidation bands.
			79.8 - 80.4	SANDY SILT (ML): Olive, 5Y 5/3, moist, firm, oxidation bands with no orientation, 1/8-inch bands.
		80.3-81.3/5	80.4 - 80.7	FOSSILIFEROUS SANDY SILT (ML): Same as 79.8 - 80.4 with oyster shell fragments up to 1/4-inch diameter.
			80.7 - 80.9	FOSSILIFEROUS SAND (SP): Same as 77.8-79.3 except with oyster shell fragments up to 1/4-inch diameter.
		81.3-82.3/15	80.9 - 83.90	SAND (SP): Same as 77.8 - 79.3. At 82.4 feet, oyster shell layer, fragments up to 1/4-inch diameter. At 82.4 - 82.6 feet, sandy silt, same as 79.8 - 80.4.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 79.3 - 83.9 feet	R = 4.6/5.0		80.9 - 83.9	SAND (SP): (continued)
		83.3-84.3/400		At 83.2 feet, silty clay, olive-gray, 5Y 5/2, slightly damp, very stiff, slightly plastic to plastic, 0.05 feet thick.
Wireline Core 84.3 - 89.3 feet	R = 4.6/5.0	84.3-85.3/550	84.3 - 84.7	SAND (SP): Olive, 5Y 4/4, wet, medium dense, fine-grained, micaceous.
			84.7 - 85.2	SILT (ML): Olive, 5Y 5/3, damp, stiff, micaceous.
		85.3-86.3/500	85.2 - 86.5	SAND (SP): Same as 84.3 - 84.7 except oily sheen throughout, most distinctive sheen at 86.4 -86.5 and 85.6 - 85.7.
				At 85.6 - 85.8 feet, white precipitate evident after sheen evaporated.
			86.5 - 86.95	INTERBEDDED SANDY SILT (ML) AND SAND (SP): Sand same as 84.3 - 84.7; silt is olive, 5Y 4/3, stiff, damp, micaceous throughout layer.
		86.3-87.3/500	86.95- 87.1	SAND (SP): Same as 84.3 - 84.7.
		87.3-88.3/45	87.1 - 88.55	SILT (ML): Same as 84.7 - 85.2.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 8

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 84.3 - 89.3	R = 4.6/5.0	88.3-88.8/200	88.55- 88.9	INTERBEDDED SANDY SILT (ML) AND SAND (SP): Same as 86.5 - 86.95.
Wireline Core 89.3 - 94.3 feet	R = 5.0/5.0	89.9-90.3/550	89.3 - 90.1	SAND (SP): Olive, 5Y 5/3, wet, medium dense, fine-grained, micaceous, some evidence of oily sheen.
			90.1 - 90.2	SANDY SILT (ML): Olive, 5Y 5/3, moist, stiff, micaceous.
			90.2 - 90.5	SAND (SP): Olive, 5Y 5/4, wet, medium dense, fine-grained, micaceous, some evidence of oily sheen.
			90.5 - 91.2	SILT (ML): Olive, 5Y 4/4, moist, stiff, micaceous.
			91.2 - 91.6	SANDY SILT INTERBEDDED WITH SILT (ML): Sandy silt is olive, 5Y 4/3, wet, firm, micaceous; silt is same as 90.5 - 91.2.
			91.6 - 92.45	SAND (SP): Dark gray, 5Y 4/1, wet, medium dense, fine-grained, micaceous, some evidence of oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-35 (continued)
LITHOLOGIC LOG FOR UPPER BELLFLOWER TEST WELL UBT-2
Page 9

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 89.3 - 94.3 feet	R =5.0/5.0		92.45- 92.85	SILT (ML): Light olive-brown, 2.5Y 5/4, damp, stiff, micaceous.
		93.8-94.3/30	92.85- 94.30	SAND (SP): Same as 89.3 - 90.1 except some evidence of oily sheen.
Wireline Core 94.3 - 99.3 feet	R = 5.0/5.0	94.3-95.3/150	94.30- 95.2	SAND (SP): Olive, 5Y 5/3, moist, dense, fine-grained, some silt, micaceous, core remained in closed barrel for 3 hours, no oily sheen observed, strong chemical odor.
		95.3-96.3/22 96.3-97.3/15 97.3-98.3/55	95.2 - 98.3	FOSSILIFEROUS SILTY SAND (SM): Olive, 5Y 5/3, moist, dense, fine-grained, no oily sheen observed, strong chemical odor, grades to sandy silt, abundant bivalve and oyster fragments ranging up to almost whole 1-inch pieces, some cementing.
		98.3-99.3/100	98.3 - 99.3	INTERBEDDED SANDY SILT AND CLAYEY SILT (ML): Light olive-brown, 2.5Y 5/4, moist, stiff; sand is fine-grained; trace shell fragments; clayey silt is moderately plastic; sandy silt is slightly to nonplastic.

TOTAL DEPTH OF BOREHOLE: 99.3 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = Length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36

LITHOLOGIC LOG FOR MONITOR WELL UBT-3

Date: September 7-12, 1989
Weather: Cloudy in mornings, moderate to strong breezes in afternoon, 75-80°F
Drill Rig: Ingersoll-Rand TH-100
Sample method: Mud rotary wireline core, 5-1/2-inch OD core barrel
Location: On-property, central processing area

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Mud Rotary Drilling	NA	NA	0 - 54.0	No samples collected for lithologic logging. Refer to lithologic log for soil boring S305.
Wireline Core 54.0 - 58.8 feet	R = 1.0/4.8	54.0-55.0/100	54.0 - 55.0	SAND (SP): Olive, 5Y 5/3, moist, medium dense, fine-grained, trace silt, micaceous, banded orange oxidation.
Wireline Core 58.8 - 63.8 feet	R = 4.2/5.0		58.8 - 59.0	SAND (SP): Very moist, fine-grained, some mica, orange oxidized throughout.
		59.0-60.0/25 60.0-61.0/60	59.0 - 61.1	SAND (SP): Olive, 5Y 6/4, wet, loose, fine-grained, micaceous, possible oily sheen, faint chemical odor grading to moderate chemical odor right above silt layer.
		61.0-62.0/20	61.1 - 61.2	SILT (ML): Olive, 5Y 5/3, damp, hard, non-plastic.
		62.0-63.2/300	61.2 - 63.0	SAND (SP): Olive, 5Y 6/4, damp, dense, micaceous.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 2

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 63.8 - 68.8 feet	R = 5.0/5.0	64.0-65.0/200 65.0-66.0/550 66.0-67.0/550 67.0-68.0/400 68.0-68.8/170	63.8 - 68.8	SAND (SP): Same as 61.2 - 63.0.
Wireline Core 68.8 - 73.8 feet	R = 5.0/5.0	68.8-69.8/110 69.8-70.8/200	68.8 - 72.2	SAND (SP): Light brownish gray, 2.5Y 6/2, wet, medium dense, fine- to medium-grained, subangular to subrounded, moderate chemical odor. At 69.6 - 69.8 feet, oily sheen.
		70.8-71.8/300	72.2 - 72.7	SAND (SP): Same as 68.8-72.2 except fine-grained. At 72.5 - 72.7 feet, oily sheen.
		71.8-72.8/500	72.7 - 72.8	SILT (ML): Pale olive, 5Y 6/3, wet, hard, thin fine sand laminations, nonplastic, chemical odor, oily sheen.
		72.8-73.8/500	72.8 - 73.7	SAND (SP): Same as 72.2 - 72.7 except with oily sheen throughout.
			73.7 - 73.8	SILT (ML): Pale olive, 5Y 6/3, damp, stiff, nonplastic, chemical odor, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 3

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 73.8 - 78.8 feet	R = 5.0/5.0	73.8-74.8/400	73.8 - 74.7	CLAYEY SILT (ML): Pale olive, 5Y 5/3, damp, stiff, moderately plastic, fine-grained sand interbeds with oily sheen.
		74.8-75.8/500	74.7 - 75.1	SAND (SP): Light olive-gray, 5Y 6/2, wet, dense, fine-grained, micaceous, oily sheen.
			75.1 - 75.2	SILT (SP): Olive, 5Y 5/6, moist, hard, oily sheen.
			75.2 - 75.7	SAND (SP): Same as 74.7 - 75.1 except with oily sheen.
		75.8-76.8/240	75.7 - 77.3	SANDY SILT (ML): Pale olive, 5Y 6/4, moist, stiff, sand is fine, nonplastic.
		76.8-77.8/40	77.3 - 77.8	SAND (SP): Same as 74.7 - 75.1 except with oily sheen layer 0.05 feet above sandy silt.
		77.8-78.8/70	77.8 - 77.9	SANDY SILT (ML): Same as 75.7 - 77.3.
			77.9 - 78.8	SAND (SP): Same as 74.7 - 75.1 except without oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 4

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 78.8 - 83.8 feet	R = 4.5/5.0	78.8-79.8/90	78.8 - 78.9	SAND (SP): Same as 74.7 - 75.1 except without oily sheen.
			78.9 - 79.5	CLAYEY SILT (ML): Olive, 5Y 5/6, moist, stiff, moderately plastic.
		79.8-80.8/180	79.5 - 81.2	SAND (SP): Same as 74.7 - 75.1, except without oily sheen. At 74.7 - 75.1 feet, oily sheen.
		80.8-81.8/170	81.2 - 81.8	SILT (ML) WITH SAND INTERBEDS (SP): Silt is olive, 5Y 5/4, very moist, very stiff, non-plastic; sand is olive-gray, 5Y 4/2, wet, medium dense, fine-grained, micaceous.
		81.8-82.8/70 82.8-83.3/54	81.8 - 83.3	SILT (ML): Same as 81.2 - 81.8.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 5

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 83.8 - 88.8 feet	R = 4.5/5.0		83.8 - 84.0	FOSSILIFEROUS SANDY SILT (ML): Olive-gray, 5Y 5/2, wet, firm; sand is fine to medium, slightly plastic, oyster shell fragments up to 1/2-inch diameter.
			84.4 - 84.8	FOSSILIFEROUS SANDY SILT (ML): Olive, 5Y 5/4, very moist, firm; sand is fine to medium, many oyster shell fragments up to 1/4-inch diameter.
		85.3-86.3/3 86.3-87.3/6 87.3-88.3/9	84.8 - 88.0	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, moist to very moist, dense, fine-grained, many oyster shell fragments up to 1-inch diameter, orange oxidation coloring.
			88.0 - 88.3	SAND (SP): Pale olive, 5Y 6/3, moist, dense, fine- to medium-grained, no shells, micaceous.
Wireline Core 88.8 - 93.8 feet	R = 5.0/5.0	88.3-89.3/120	88.8 - 89.5	INTERBEDDED SAND (SP) AND SILT (ML): Sand is light olive-brown, 2.5Y 5/4, moist, dense, fine-grained; silt is same color, moist, stiff.
		89.3-90.3/500	89.5 - 90.1	SAND (SP): Olive-gray, 5Y 5/2, moist, medium-dense, fine- to medium-grained. At 90.05 feet, oily sheen.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 6

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 88.8 - 93.8 feet	R = 5.0/5.0	90.3-91.3/300	90.1 - 91.0	INTERBEDDED SANDY SILT (ML) AND SILT (ML): Olive, 5Y 4/4, damp, very stiff.
			91.0 - 91.7	INTERBEDDED SAND (SP) AND SILTY SAND (SM): Olive-gray, 5Y 4/2, damp, dense, fine-grained.
		91.3-92.3/200	91.7 - 92.4	SANDY SILT (ML): Olive, 5Y 4/4, damp, very stiff.
		92.3-93.3/100	92.4 - 93.8	SAND (SP): Olive, 5Y 4/3, moist, dense, fine- to medium-grained.
				At 92.4 - 93.0 feet, oily sheen.
Wireline Core 93.8 - 97.8 feet	R = 3.8/4.0	93.3-94.3/50	93.8 - 94.4	INTERBEDDED SAND (SP) AND SANDY SILT (ML): Sand is olive, 5Y 4/3, moist, dense, fine-grained; silt is same color, moist, stiff.
				At 94.1 - 94.3 feet, oily sheen.
		94.3-95.3/40	94.4 - 94.8	SAND (SP): Olive, 5Y 4/4, moist, dense, fine-grained.

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

TABLE A-36 (continued)
LITHOLOGIC LOG FOR MONITOR WELL UBT-3
Page 7

DRILLING/SAMPLING METHOD	RECOVERY*	OVA** (ft/ppm)	DEPTH INTERVAL (feet)	DESCRIPTION
Wireline Core 93.8 - 97.8 feet	R = 3.8/4.0	95.3-96.3/25 96.3-97.3/30	94.8 - 97.6	FOSSILIFEROUS SAND (SP): Olive, 5Y 5/3, moist, dense, fine-grained, sand grades finer with depth, oyster shell fragments with some pink shell fragments up to 1-inch diameter, some cementing.

TOTAL DEPTH OF BOREHOLE: 97.3 FEET

OVA = Organic vapor analyzer
ft/ppm = Feet; parts per million
NA = Not applicable

*Recovery = length of sample in sampler/length of sampler driven or cored, measured in feet.
**OVA readings in ppm of soil collected at depth indicated. OVA background readings deducted when reported values are below 50 ppm.

APPENDIX B

GEOPHYSICAL LOGS

APPENDIX B

TABLE OF CONTENTS

BARBOUR CORP

WELL SURVEYING
805-482-4988

ELECTRIC LOG

FILING NO. 218.1

COMPANY HARGIS AND ASSOCIATES

WELL EB-8

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
SOUTHEAST REGION OF MCDONNELL DOUGLASS CORPORATION

SEC TWP RGE

OTHER SERVICE
G/C

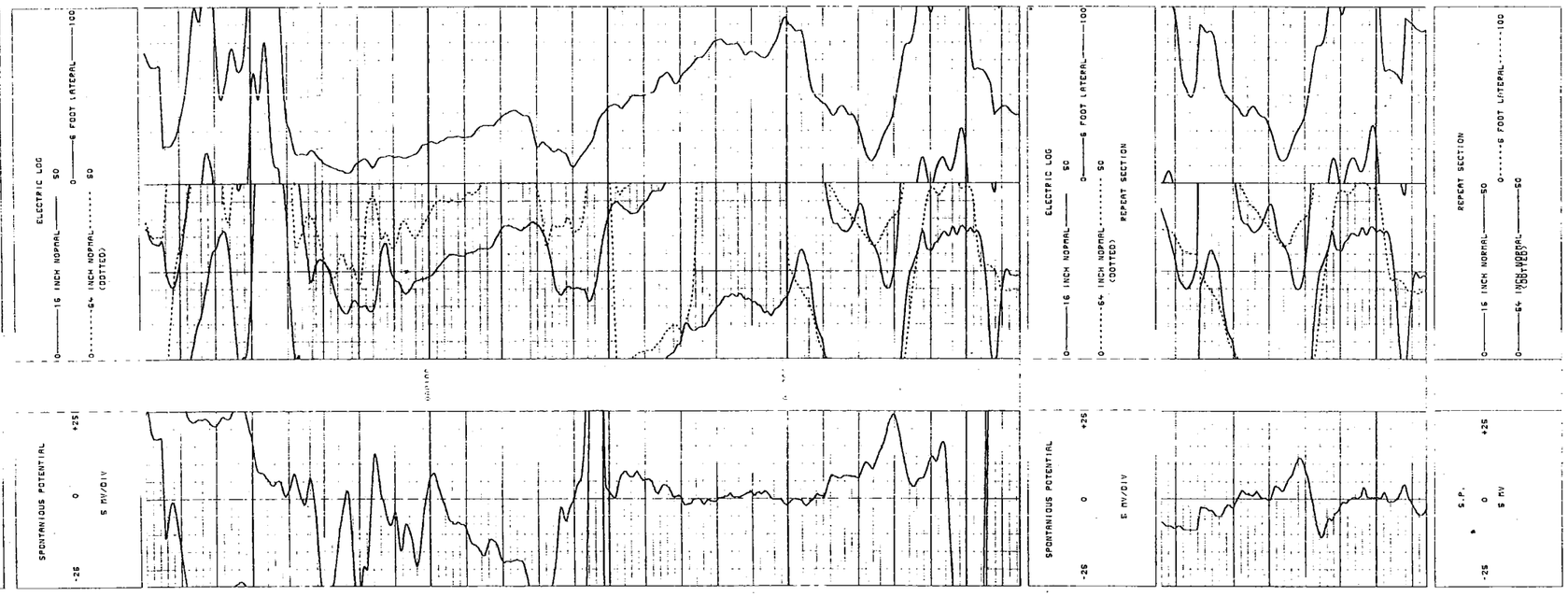
ELEVATIONS
KB
DF
GL

PERMANENT DATUM ASPHALT ELEV
LOG MEASURED FROM G.L. .0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

DATE	9/22/89				
RUN NO.	ONE				
DEPTH DRILLER	265 FT.				
DEPTH LOGGER	266 FT.				
BOTTOM LOGGED INT.	265 FT.				
TOP LOGGED INT.	20 FT.				
CASING DRILLER	4 FT.				
CASING LOGGER	NA				
BIT SIZE	5.50 INCH				
TYPE FLUID IN HOLE	BENTONITE				
DENSITY @ VISCOSITY	42 SECONDS				
PH AND FLUID LOSS	NA				
SOURCE OF SAMPLE	SHAKER				
CM @ MEAS. TEMP.	1396 @ 77 F				
RMF @ MEAS. TEMP.	NA				
RMC @ MEAS. TEMP.	NA				
SOURCE OF RMF @ RMC	NA				
RM @ BHT	NA				
TIME SINCE CIRC.	1 HR.*				
MAX. REC. TEMP. F.	NA				
EQUIP. NO.. AND LOC.	8-1 CAM				
RECORDED BY	JOEL BARBOUR				
WITNESSED BY	MATT WICOLIN				

CALIBRATED 9/27/89

TOOL ELP - 4277



BARBOUR CORP

WELL SURVEYING
805 482 4988

GAMMA-RAY/CALIPER

FILING NO.
218.1

COMPANY HARGIS AND ASSOCIATES

WELL EB-8

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
SOUTHEAST REGION OF MCDONNELL DOUGLASS CORPORATION

OTHER SERVICE
E/--

SEC TWP RGE

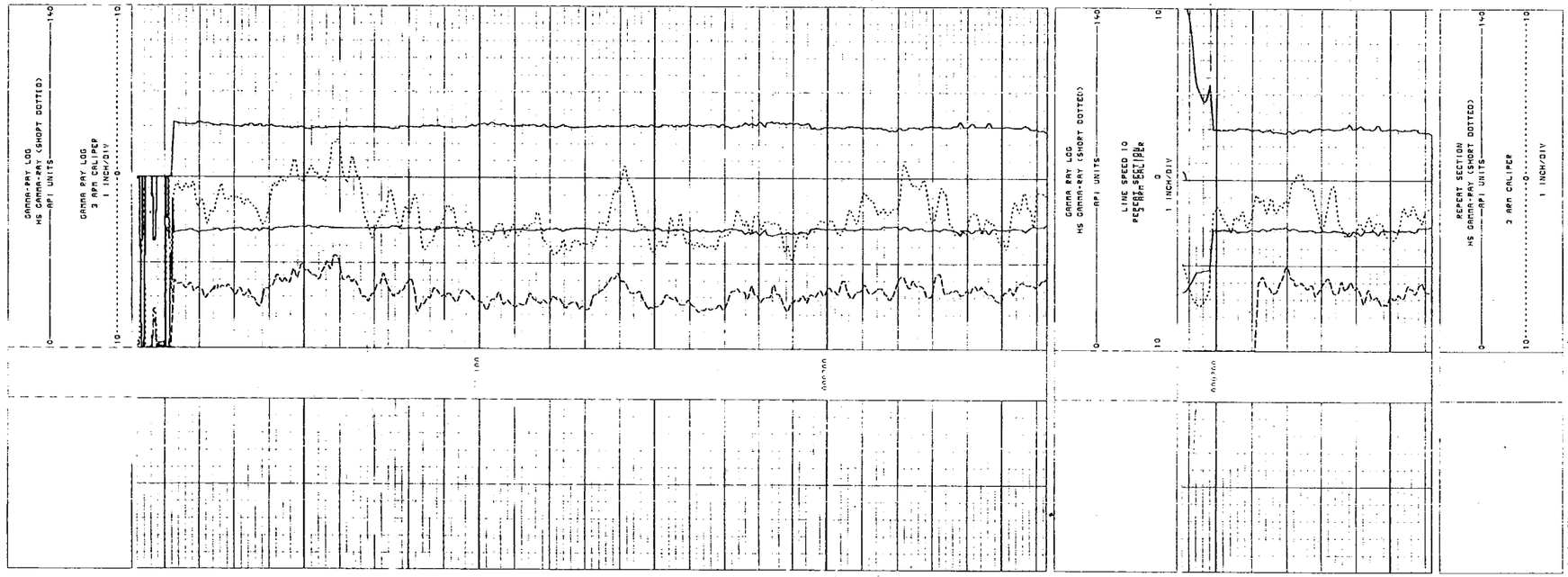
ELEVATIONS
KB
DF
GL

PERMANENT DATUM ASPHALT ELEV
LOG MEASURED FROM G.L. .0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

DATE	9/27/89			
RUN NO.	ONE			
DEPTH DRILLER	265 FT.			
DEPTH LOGGER	266 FT.			
BOTTOM LOGGED INT.	263 FT.			
TOP LOGGED INT.	10 FT.			
CASING DRILLER	4 FT.			
CASING LOGGER	NA			
BIT SIZE	5.50 INCH			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY & VISCOSITY	42 SECONDS			
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	SHAKER			
CM @ MEAS. TEMP.	1395 @ 77 F			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF @ RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	NA			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	P-1 CAM			
RECORDED BY	JOEL BARBOUR			
WITNESSED BY	MATT WIEDLIN			

CALIBRATED 9/27/89 AT SITE

HS/GR 07



BARBOUR CORP

WELL SURVEYING
805-482-4988

ELECTRIC LOG

FILING NO.

COMPANY HARGIS AND ASSOC
WELL E8-9
FIELD TORRENCE
COUNTY LOS ANGELES STATE CAL

LOCATION
NEW HAMPSHIRE/DEL AMO
SEC TWP RGE

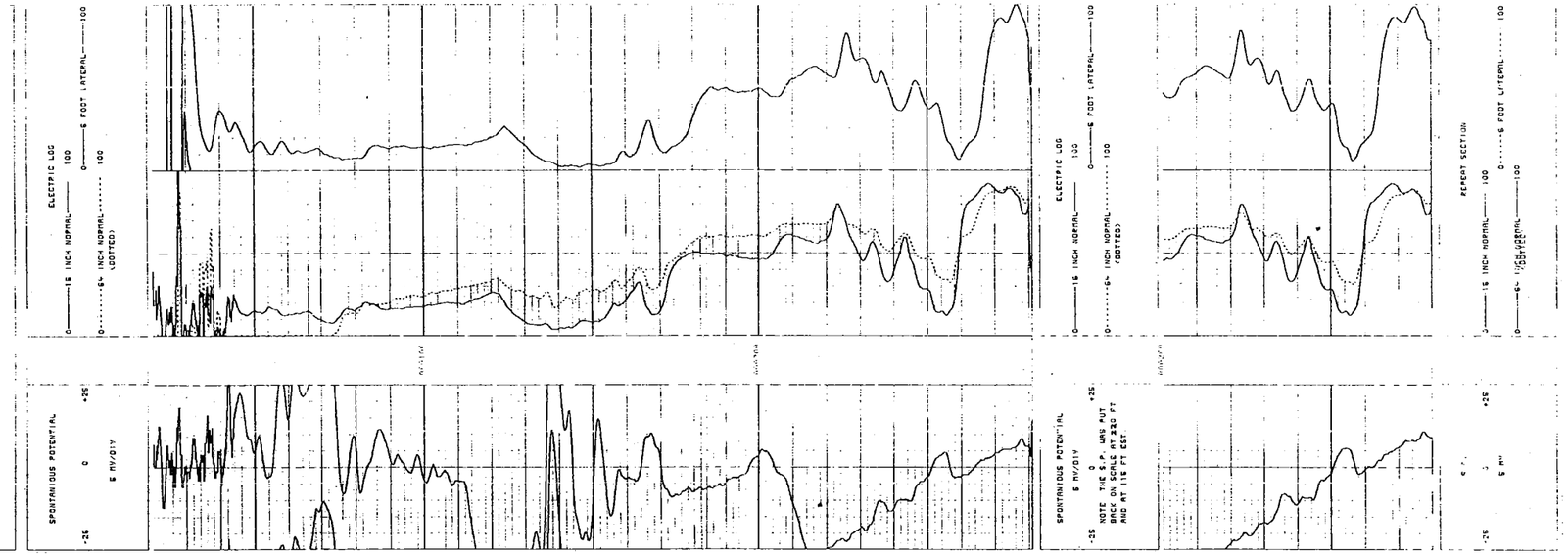
OTHER SERVICE
GAMMA/CALIPER

PERMANENT DATUM G.L. ELEV
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB NA
DF NA
GL NA

DATE	10-30-89			
RUN NO.	ONE			
DEPTH DRILLER	280 FT.			
DEPTH LOGGER	281 FT.			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
CASING DRILLER	NA			
CASING LOGGER	NA			
BIT SIZE	5.5 INCH			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY & VISCOSITY	NA			
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	NA			
RM @ MEAS. TEMP.	990 @ 77F			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF & RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	1 HOUR			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	R-1 CAN			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	KEVIN DEFIES			

TOOL ELP - 1327



BARBOUR CORP

WELL SURVEYING
805 482 4988

GAMMA RAY LOG/CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL EB-9

FIELD TORRENCE

COUNTY LOS ANGELES STATE CAL

LOCATION
NEW HAMPSHIRE/DEL AMO

SEC TWP RGE

OTHER SERVICE
E-LOG

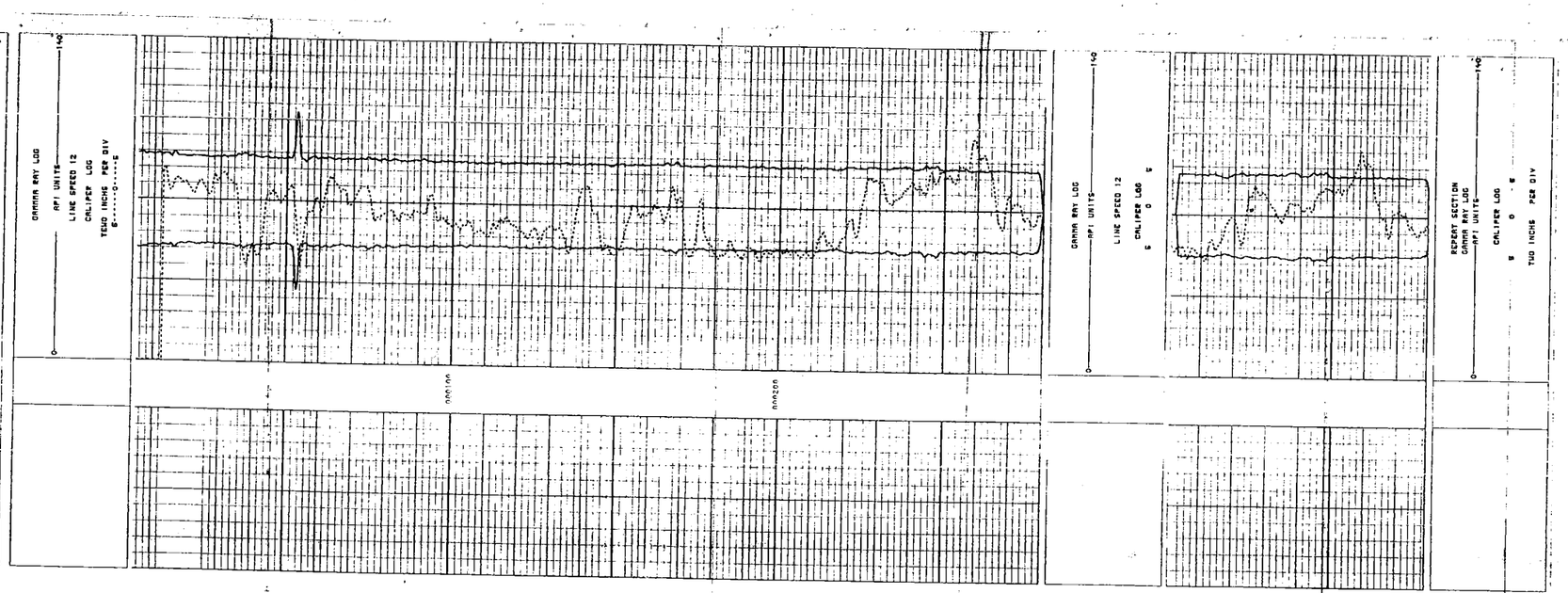
PERMANENT DATUM G.L. ELEV 0 FT
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB NA
DF NA
GL NA

DATE	10-30-89				
RUN NO.	ONE				
DEPTH DRILLER	280 FT				
DEPTH LOGGER	281 FT				
BOTTOM LOGGED INT.					
TOP LOGGED INT.					
CASING DRILLER					
CASING LOGGER					
BIT SIZE	5.6 INCH				
TYPE FLUID IN HOLE	BENTONITE				
DENSITY & VISCOSITY	NA				
PH AND FLUID LOSS	NA				
SOURCE OF SAMPLE	NA				
RM @ MEAS. TEMP.	NA				
RMF @ MEAS. TEMP.	NA				
RMC @ MEAS. TEMP.	NA				
SOURCE OF RMF & RMC	NA				
RM @ BHT	NA				
TIME SINCE CIRC.	NA				
MAX. REC. TEMP. F.	NA				
EQUIP. NO. AND LOC.	2-1 CAN				
RECORDED BY	BUDDY LEWIS				
WITNESSED BY	KEVIN DEPIES				

ALL INTERPRETATIONS ARE BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGE OR EXPENSE INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS, OR EMPLOYEES.

HS/GP 07



BARBOUR CORP

WELL SURVEYING
805-482-4988

ELECTRIC LOG

FILING NO. 218.1

COMPANY HARGIS AND ASSOCIATES
WELL . EB-11
FIELD MONTROSE
COUNTY LOS ANGELES STATE CAL

LOCATION
BUDLONG AVE NEAR MILTON ST.

SEC TWP RGE

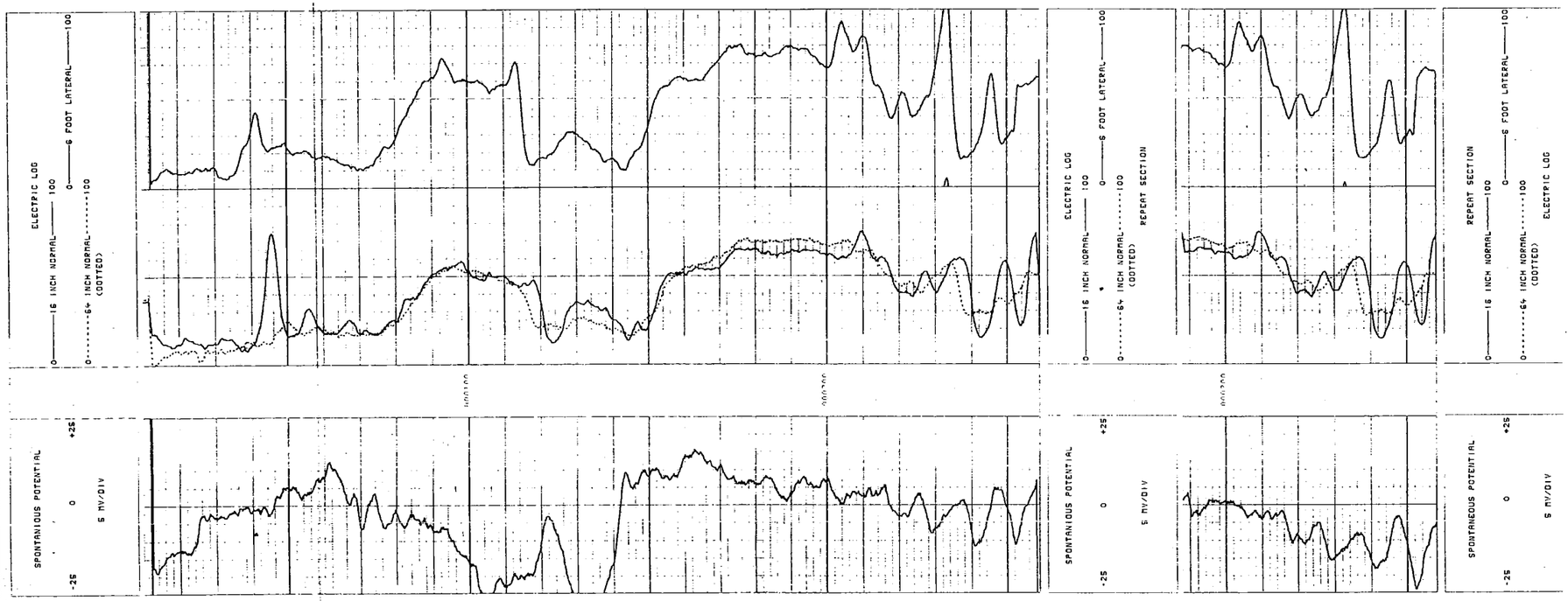
OTHER SERVICE
G/C

ELEVATIONS
KB NA
DF NA
GL

PERMANENT DATUM ST. SURFACE ELEV
LOG MEASURED FROM SS ,0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM SS

DATE	8/19/89				
RUN NO.	ONE				
DEPTH DRILLER	269 FT.				
DEPTH LOGGER	269 FT.				
BOTTOM LOGGED INT.	259 FT.				
TOP LOGGED INT.	10 FT.				
CASING DRILLER	NA				
CASING LOGGER	NA				
BIT SIZE	5.50 INCH				
TYPE FLUID IN HOLE	BENTONITE				
DENSITY & VISCOSITY	8.7 LB /29SEC				
PH AND FLUID LOSS	NA				
SOURCE OF SAMPLE	TANK				
CM @ MEAS. TEMP.	3590 @ 77 F				
RMF @ MEAS. TEMP.	NA				
RMC @ MEAS. TEMP.	NA				
SOURCE OF RMF @ RMC	NA				
RM @ BHT	NA				
TIME SINCE CIRC.	2 HRS				
MAX. REC. TEMP. F.	NA				
EQUIP. NO. AND LOC.	R-1 CAM				
RECORDED BY	JOEL BARBOUR				
WITNESSED BY	MATT WIEDLIN				

TOOL ELP - 4127
CALIBRATION RUN AT SITE 8/19/89 1650 OHM . 64=200 OHM.1S=100 OHM
DRIFT CHECKED IN HOLE AT 70 FT. WITNESSED BY MATT WIEDLIN



BARBOUR CORP

WELL SURVEYING
805 482 4988

GAMMA RAY/CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL EB-11

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
BUDLONG AVE NEAR MILTON ST.

SEC TWP RGE

OTHER SERVICE

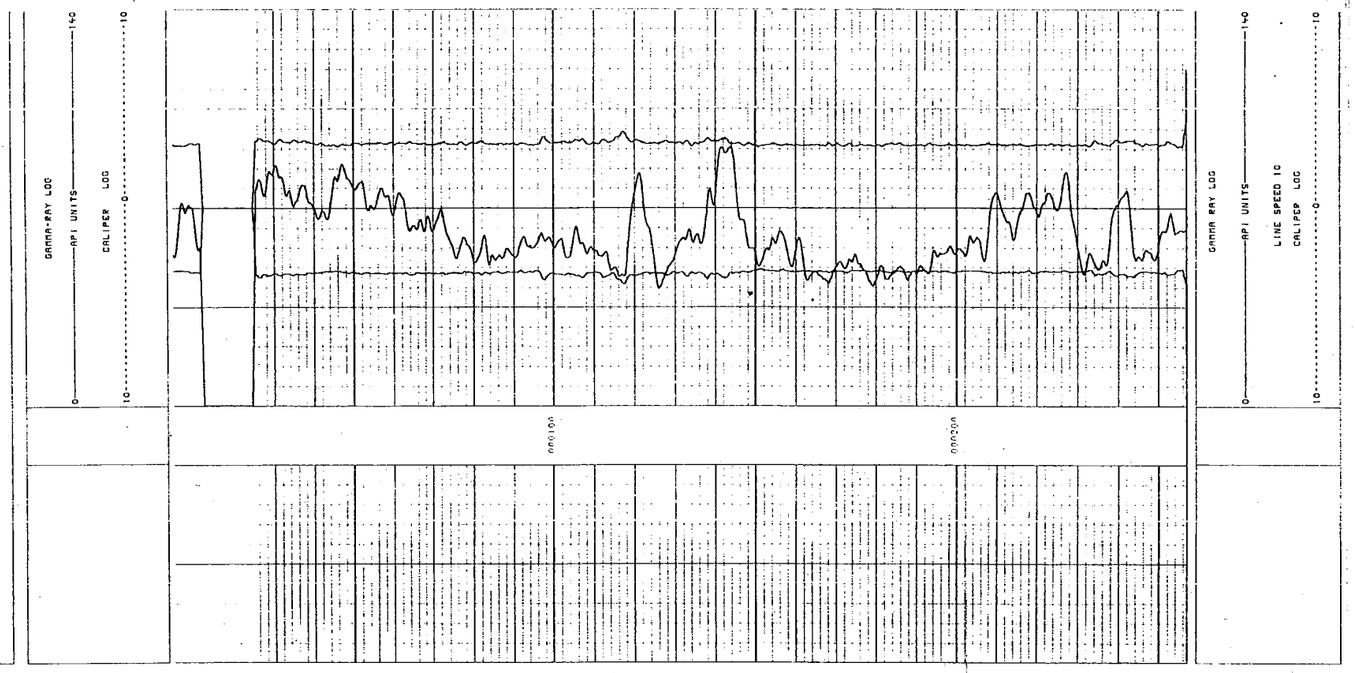
PERMANENT DATUM: STREET SURFACE ELEV
LOG MEASURED FROM SS .0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM SS

ELEVATIONS
KB
DF
GL

DATE	8/19/89				
RUN NO.	ONE				
DEPTH DRILLER	259 FT				
DEPTH LOGGER	259 FT				
BOTTOM LOGGED INT.	257 FT				
TOP LOGGED INT.	5 FT				
CASING DRILLER					
CASING LOGGER					
BIT SIZE	5.50 INCH				
TYPE FLUID IN HOLE	BENTONITE				
DENSITY @ VISCOSITY	8.7LB/29 SEC				
PH AND FLUID LOSS					
SOURCE OF SAMPLE					
CM @ MEAS. TEMP.					
RMF @ MEAS. TEMP.					
RMC @ MEAS. TEMP.					
SOURCE OF RMF @ RMC					
RM @ BHT					
TIME SINCE CIRC.	3 HRS				
MAX. REC. TEMP. F.					
EQUIP. NO. AND LOC.	R-1				
RECORDED BY	JOEL BARBOUR				
WITNESSED BY	MATT WIEDLAN				

ALL INTERPRETATIONS ARE BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARENTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS. AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST DAMAGES OR EXPENCES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS. AGENTS. OR EMPLYEES.

HS/GR 07



BARBOUR CORP

WELL SURVEYING
805-482-4900

ELECTRIC LOG

FILING NO.

COMPANY HARGIS AND ASSOC
WELL EB-12
FIELD MONTROSE
COUNTY LOS ANGELES STATE CAL

LOCATION WEST HILTON/NEW HAMPSHIRE ST
SEC TWP RGE

OTHER SERVICE GAMMA/CAL

PERMANENT DATUM G.L. ELEV.
LOG MEASURED FROM G.L. -0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB NA
DF NA
GL NA

DATE	11/18/88			
RUN NO.	ONE			
DEPTH DRILLER	260 FT			
DEPTH LOGGER	261 FT			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
CASING DRILLER				
CASING LOGGER				
BIT SIZE	5.25 INCH			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY & VISCOSITY				
PH AND FLUID LOSS				
SOURCE OF SAMPLE	DITCH			
RM @ MEAS. TEMP.	200 @ 72 F			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF @ RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	NA			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	E-1 CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	JOHN BURTON			

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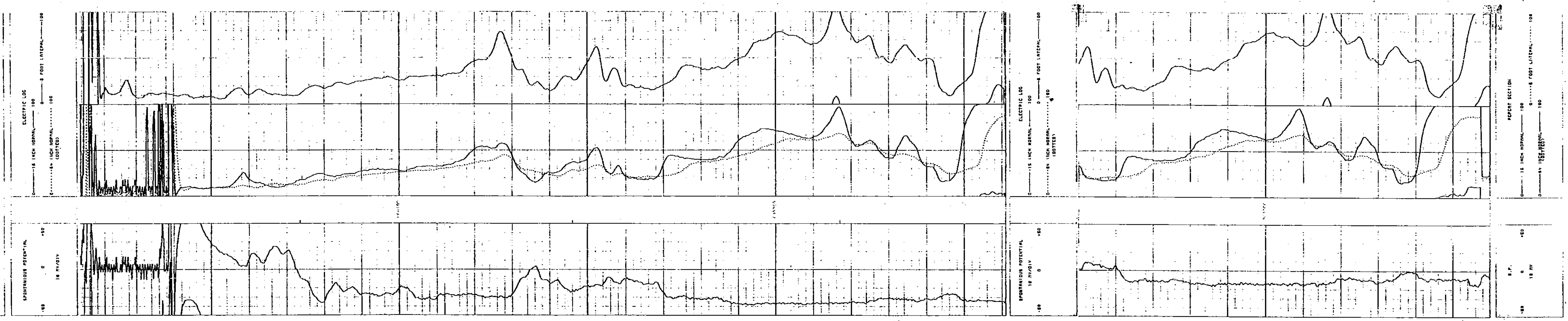
TOOL ELP - 41277

CALIBRATED 11/18/88



BARBOUR CORP

WELL SURVEYING
805-482-4988

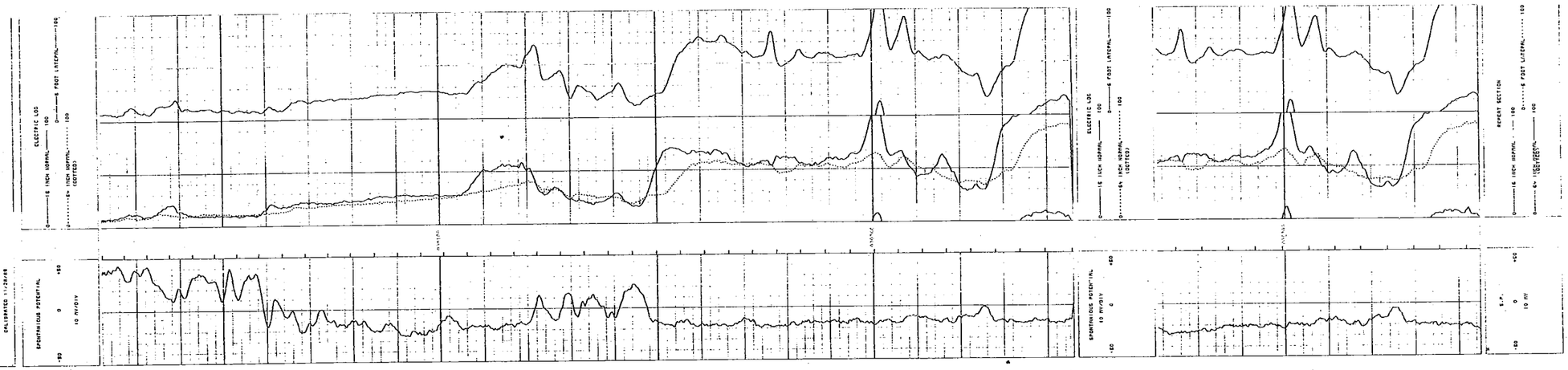
ELECTRIC LOG

FILING NO.	COMPANY	HARGIS AND ASSOC			
	WELL	EB-13			
	FIELD	MONTROSE			
	COUNTY	LOS ANGELES	STATE CA		
	LOCATION	DOBLE AND CINOLEY	OTHER SERVICE	GAMMA/CALIPER	
	SEC NA	TWP NA	RGE NA		
PERMANENT DATUM GROUND LEVEL ELEV NA LOG MEASURED FROM G.L. -0 FT. ABOVE PERMANENT DATUM DRILLING MEASURED FROM G.L.			ELEVATIONS KB NA DF NA GL NA		
DATE	11-28-89				
RUN NO.	ONE				
DEPTH DRILLER	215.5 FT				
DEPTH LOGGER	216 FT				
BOTTOM LOGGED INT.	NA				
TOP LOGGED INT.	NA				
CASING DRILLER	NA				
CASING LOGGER	NA				
BIT SIZE	5.25 INCHS				
TYPE FLUID IN HOLE	BENTONITE				
DENSITY & VISCOSITY	NA				
PH AND FLUID LOSS	NA				
SOURCE OF SAMPLE	DITCH				
CM @ MEAS. TEMP.	925 @ 77 F				
RMF @ MEAS. TEMP.	NA				
RMC @ MEAS. TEMP.	NA				
SOURCE OF RMF & RMC	NA				
RM @ BHT	NA				
TIME SINCE CIRC.	ONE HOUR				
MAX. REC. TEMP. F.	NA				
EQUIP. NO. AND LOC.	E-1				
RECORDED BY	BUDDY LEWIS				
WITNESSED BY	KEVIN DEFIES				

ALL INTERPRETATIONS ARE BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, THEREFORE, GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES.

TOOL DLP - 1227

CALIBRATED 11/28/89



BARBOUR CORP
WELL SURVEYING
805 482 1888

GAMMA RAY LOG - CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC
WELL EB-13
FIELD MONTROSE
COUNTY LOS ANGELES STATE CA

LOCATION DOBLE AND LINLEY
SEC NA TWP NA RGE NA

OTHER SERVICE: E-LOG

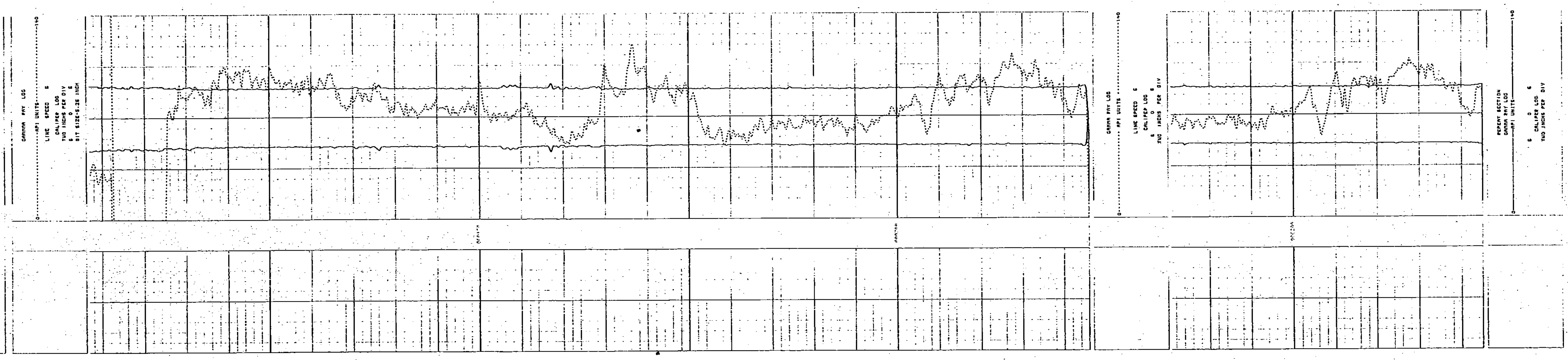
PERMANENT DATUM GROUND LEVEL ELEV NA
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB NA
DF NA
GL NA

DATE	11-28-89			
RUN NO.	ONE			
DEPTH DRILLER	246.5 FT			
DEPTH LOGGER	246 FT			
BOTTOM LOGGED INT.	NA			
TOP LOGGED INT.	NA			
CASING DRILLER	NA			
CASING LOGGER	NA			
BIT SIZE	6.20 INCHS			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY & VISCOSITY	NA			
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	NA			
RM @ MEAS. TEMP.	NA			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF & RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	4 HOURS			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	#1			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	KEVIN DEPIES			

3-AC
CALIBRATED 11-28-89

HS/GR 07
CALIBRATED 11-28-89



BARBOUR CORP

WELL SURVEYING
805-482-4988

ELECTRIC LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL G-12

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
CATALINA AND 204 STREET

SEC TWP RGE

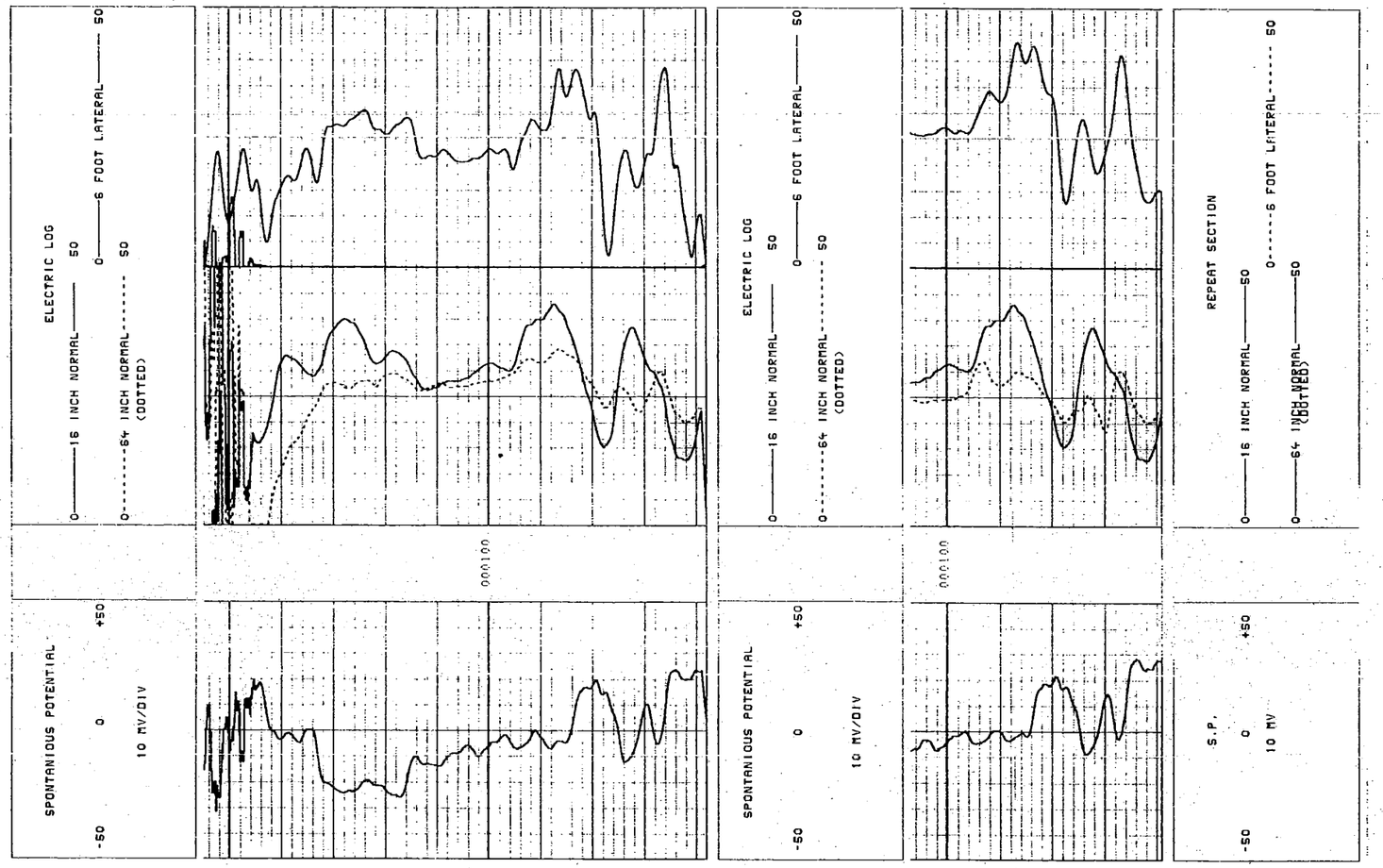
OTHER SERVICE
GAMMA/CALIPER

PERMANENT DATUM G.L. ELEV
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB NA
DF NA
GL NA

DATE	10-17-89			
RUN NO.	ONE			
DEPTH DRILLER	144 FT.			
DEPTH LOGGER	142 FT.			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
CASING DRILLER	NA			
CASING LOGGER	NA			
BIT SIZE	6 1/4 INCH			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY @ VISCOSITY				
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	NA			
CM @ MEAS. TEMP.	1098 @ 72F			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF @ RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.				
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	R-1 CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	MATT WIEDLIN			

TOOL ELP - 1277



BARBOUR CORP

WELL SURVEYING
805 482 4988

GAMMA RAY LOG/CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL G-12

FIELD MONTROSE

COUNTY LOS ANGELES STATE CA

LOCATION
CATALINA AND 204 STREET

SEC TWP RGE

OTHER SERVICE
E-LOG

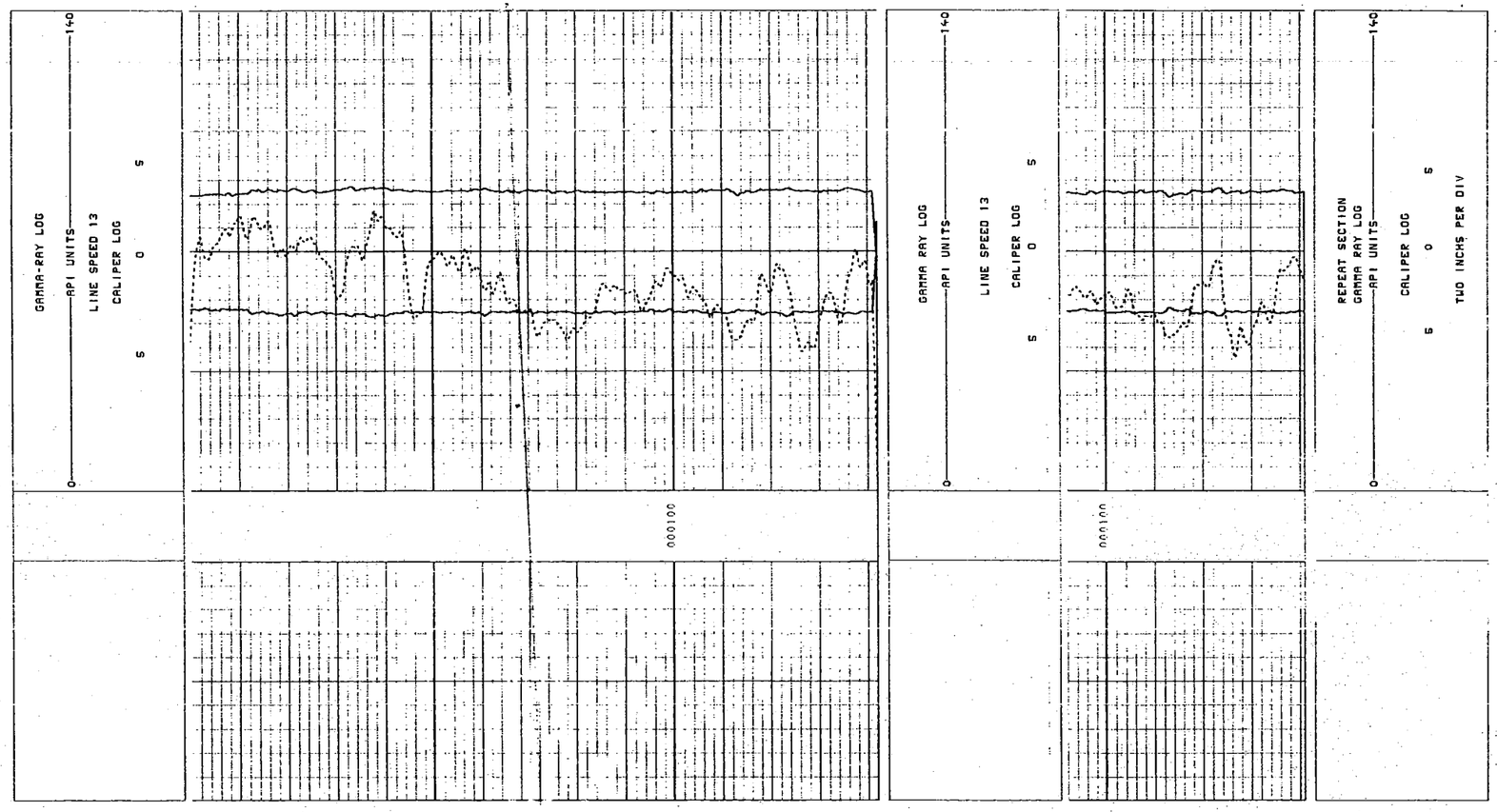
PERMANENT DATUM G.L. ELEV
LOG MEASURED FROM G.L. 10 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB
DF
GL

DATE	10-17-89			
RUN NO.	ONE			
DEPTH DRILLER	144 FT			
DEPTH LOGGER	142 FT			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
CASING DRILLER				
CASING LOGGER				
BIT SIZE	5 1/4 INCH			
TYPE FLUID IN HOLE				
DENSITY @ VISCOSITY	NA			
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	NA			
CM @ MEAS. TEMP.	NA			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF @ RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	NA			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	R-1 CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	MATT WIEDLIN			

ALL INTERPRETATIONS ARE BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARENTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES OR EXPENCES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS, OR EMPLYEES.

HS/GR 07



BARBOUR CORP

WELL SURVEYING
805-482-4988

ELECTRIC LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL LW-3

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
FRANCISCO STREET

SEC TWP RGE

OTHER SERVICE

ELEVATIONS
KB NA
DF NA
GL NA

PERMANENT DATUM G.L. ELEV
LOG MEASURED FROM G.L. .0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

DATE	11/15/88				
RUN NO.	ONE				
DEPTH DRILLER	225 FT.				
DEPTH LOGGER	225 FT.				
BOTTOM LOGGED INT.					
TOP LOGGED INT.					
CASING DRILLER					
CASING LOGGER					
BIT SIZE	5 .25 INCH				
TYPE FLUID IN HOLE	QUIKGONITE				
DENSITY & VISCOSITY					
PH AND FLUID LOSS					
SOURCE OF SAMPLE	DITCH				
CM @ MEAS. TEMP.	.386 @ 77 F				
RMF @ MEAS. TEMP.	NA				
RMC @ MEAS. TEMP.	NA				
SOURCE OF RMF & RMC	NA				
RM @ BHT	NA				
TIME SINCE CIRC.					
MAX. REC. TEMP. F.	NA				
EQUIP. NO. AND LOC.	R-1 CAN				
RECORDED BY	BUDDY LEWIS				
WITNESSED BY	JOHN DUSTON				

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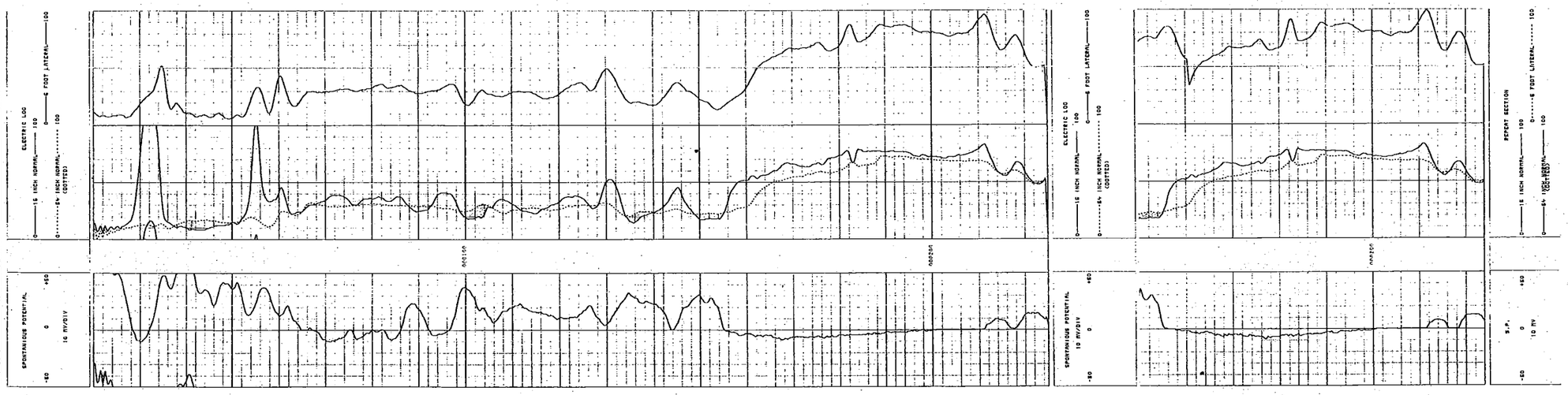
TOOL ELP - 1227
CALIBRATED 11/16/88



BARBOUR CORP

WELL SURVEYING
805 482 4988

GAMMA RAY LOG / CALIPER LOG

FILING NO.	
COMPANY	HARGIS AND ASSOC
WELL	LW-3
FIELD	MONTROSE
COUNTY	LOS ANGELES
STATE	CAL
LOCATION	FRANCISCO STREET
OTHER SERVICE	
SEC	
TWP	
RGE	

PERMANENT DATUM G.L. ELEV

LOG MEASURED FROM G.L. 10 FT. ABOVE PERMANENT DATUM

DRILLING MEASURED FROM G.L.

ELEVATIONS: KB NA; DF NA; GL NA

DATE	11/16/89			
RUN NO.	ONE			
DEPTH DRILLER	225 FT.			
DEPTH LOGGER	225 FT.			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
CASING DRILLER				
CASING LOGGER				
BIT SIZE	5.25 INCH			
TYPE FLUID IN HOLE	BENTONITE			
DENSITY & VISCOSITY	NA			
PH AND FLUID LOSS	NA			
SOURCE OF SAMPLE	NA			
CM @ MEAS. TEMP.	NA			
RMF @ MEAS. TEMP.	NA			
RMC @ MEAS. TEMP.	NA			
SOURCE OF RMF & RMC	NA			
RM @ BHT	NA			
TIME SINCE CIRC.	NA			
MAX. REC. TEMP. F.	NA			
EQUIP. NO. AND LOC.	P-1 CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	JOHN DUNTON			

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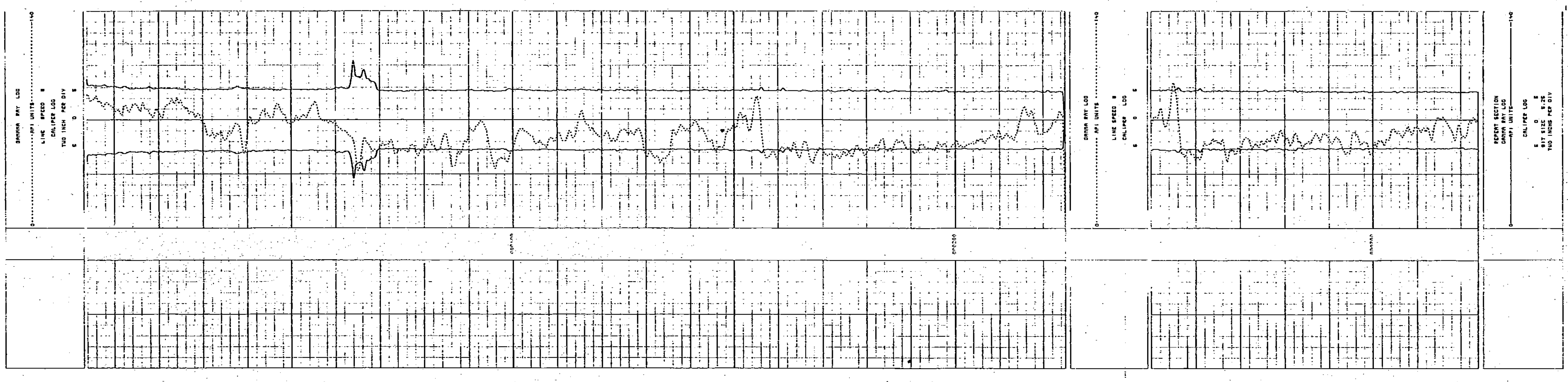
HS/GR 07 AND THR-ARM-CAL
CALIBRATED 11-14-89



BARBOUR CORP

WELL SURVEYING
805-482-4988

CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL UBT-1

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
20201 NORMANDIE AVE

SEC TWP RGE

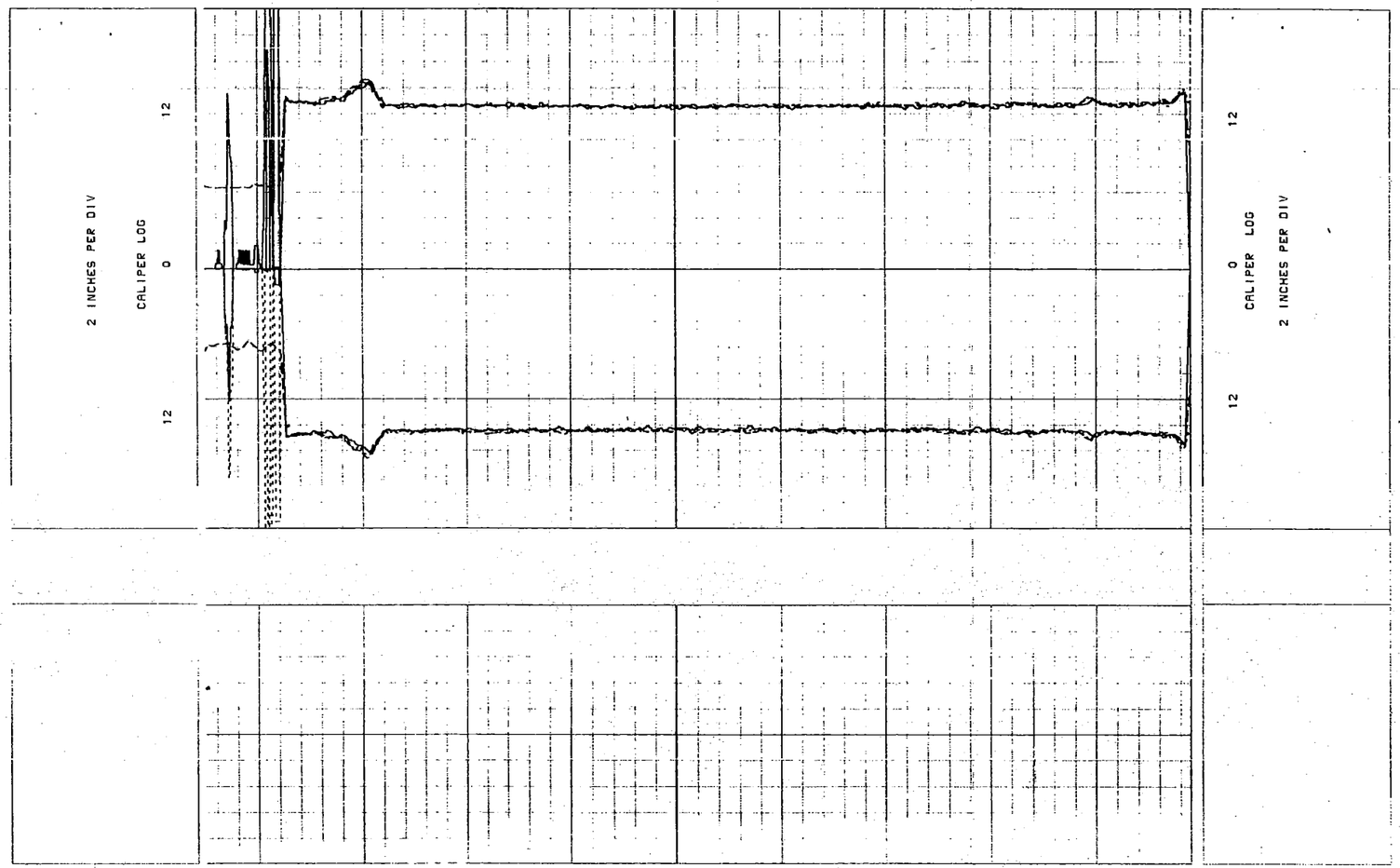
OTHER SERVICE
NO

PERMANENT DATUM GROUND LEVEL ELEV
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB
DF
GL

DATE	9-20-89			
RUN NO.	ONE			
TYPE LOG	CALIPER			
DEPTH DRILLER	99 FT			
DEPTH LOGGED	99 FT			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
TYPE FLUID IN HOLE	BENTONITE			
DENSITY				
FLUID LEVEL				
MAX. HOLE TEMP.				
TRUCK NO.	R-1 CAM			
LOCATION	CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	MATT WIEDLIN			

BORE HOLE RECORD				CASING RECORD			
RUN	BIT	FROM	TO	SIZE	WT.	FROM	TO



BARBOUR CORP

WELL SURVEYING
805-482-4988

CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL UBT-2

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
20201 NORMANDIE AVE

SEC TWP RGE

OTHER SERVICE
NO

ELEVATIONS
KB
DF
GL

PERMANENT DATUM GROUND LEVEL ELEV
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

DATE	9-13-89			
RUN NO.	ONE			
TYPE LOG	CALIPER			
DEPTH DRILLER	101 FT.			
DEPTH LOGGED	101 FT.			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
TYPE FLUID IN HOLE	BENTONITE			
DENSITY				
FLUID LEVEL				
MAX. HOLE TEMP.				
TRUCK NO.	R-1 CAM			
LOCATION	CAM.			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	MATT WIEDLIN			

BORE HOLE RECORD				CASING RECORD			
RUN	BIT	FROM	TO	SIZE	WT.	FROM	TO

ALL INTERPRETATIONS ARE BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARANTEE THE ACCURACY AR CORRECTNESS OF ANY INTERPRETATION. AND WE SHALL NOT.EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLIGENCE ON OUR PART.BE LIABLE OR RESPONSIBLE FOR ANY LOSS.COST.DAMAGES OR EXPENCES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS.AGENTS.OR EMPLOYEES.

BARBOUR CORP

WELL SURVEYING
805-482-4988

CALIPER LOG

FILING NO.

COMPANY HARGIS AND ASSOC

WELL UBT-3

FIELD MONTROSE

COUNTY LOS ANGELES STATE CAL

LOCATION
20201 NORMANDIE AVE

SEC TWP RGE

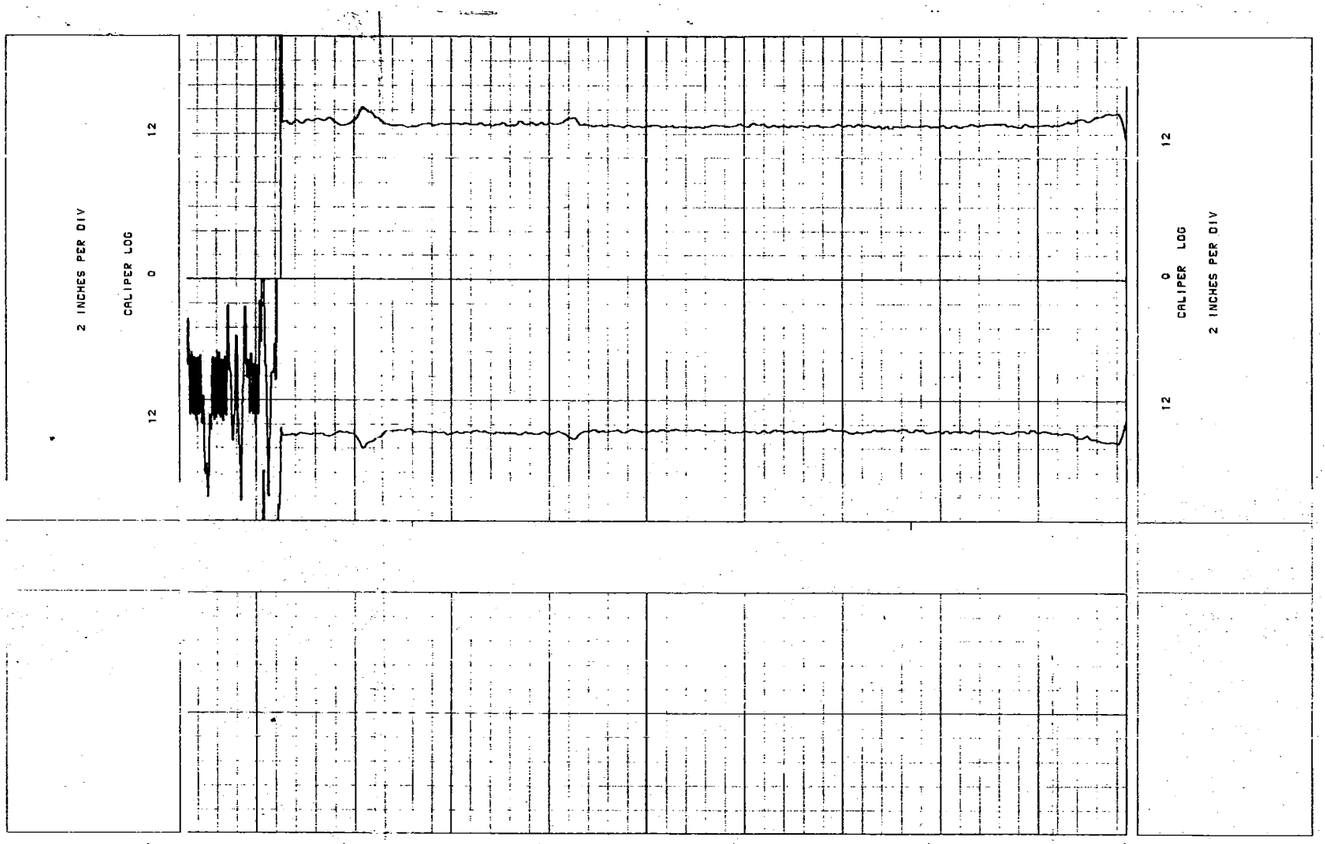
OTHER SERVICE
NO

PERMANENT DATUM GROUND LEVEL ELEV
LOG MEASURED FROM G.L. 0 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM G.L.

ELEVATIONS
KB
DF
GL

DATE	9-11-89			
RUN NO.	ONE			
TYPE LOG	CALIPER			
DEPTH DRILLER	99 FT			
DEPTH LOGGED	99 FT			
BOTTOM LOGGED INT.				
TOP LOGGED INT.				
TYPE FLUID IN HOLE	BENTONITE			
DENSITY				
FLUID LEVEL				
MAX. HOLE TEMP.				
TRUCK NO.	R-T CAM			
LOCATION	CAM			
RECORDED BY	BUDDY LEWIS			
WITNESSED BY	MATT WIEDLIN			

BORE HOLE RECORD				CASING RECORD			
RUN	BIT	FROM	TO	SIZE	WT.	FROM	TO



APPENDIX C

WELL CONSTRUCTION DATA

APPENDIX C

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TABLE C-1

WELL CONSTRUCTION DATA
UPPER BELLFLOWER AQUITARD MONITOR WELLS

WELL IDENTIFIER	DEPTH DRILLED(a) (feet bls)	DATE COMPLETED	4-INCH DIAMETER PVC BLANK CASING INTERVAL(a) (feet bls)	4-INCH DIAMETER 316L WIRE WRAP SCREEN INTERVAL(a) (feet bls)	SCREEN SLOT SIZE (inches)	FILTER PACK INTERVAL(a) (feet bls)	FILTER PACK SIZE(b)	GROUT FILTER INTERVAL (feet bls)	BENTONITE SEAL INTERVAL(a) (feet bls)	CEMENTED INTERVAL(a) (feet bls)
MW-16	78	03-31-90	1-59	59-76	0.010	58-76	1C	55-58	52-55	0-52
MW-17	83	04-02-90	1-65	65-81	0.020	63-81	1C	61-63	58-61	0-58
MW-18	84	03-29-90	1-68	68-83	0.020	67-84	1C	64-67	61-64	0-61
MW-19	80	03-30-90	1-63	63-79	0.020	62-79	1C	60-62	57-60	0-57
MW-20	74	04-04-90	0-57(c,d)	57-73(d)	0.010	54-73	1C	52-54	50-52	0-50
MW-21	73	03-28-90	1-54	54-70	0.010	53-71	1C	49-53	42-49	0-48
MW-22	74	04-01-90	0-57(e,d)	57-73	0.020	56-74	1C	54-56	52-54	2-52
MW-23	80	08-03-89	1-60	60-75	0.020	58-80	1C	55-58	51-55	0-51
MW-24	69	08-04-89	1-49	49-64	0.010	47-66	1C	44-47	41-44	0-41
MW-25	75	08-05-89	1-56	56-71	0.020	53-74	1C	50-53	47-50	0-47
MW-26	80	08-06-89	1-59	59-74	0.020	56-76	1C	53-56	51-53	0-51

(a) Dimensions reported to the nearest foot.
(b) Filter pack consists of Monterey sand, filter pack sizes are Lone Star Lapis Lustre size designations.
(c) Monitor well is temporarily completed with top of casing 1.5 feet above land surface.
(d) 2-inch diameter casing and screen.
(e) Monitor well is temporarily completed with top of casing 0.8 above land surface.

TABLE C-2

WELL CONSTRUCTION DATA
BELLFLOWER SAND, GAGE, AND LYNWOOD AQUIFER MONITOR WELLS

WELL IDENTIFIER	DATE COMPLETED	TOTAL DEPTH DRILLED(a) (feet bls)	13-3/4-INCH DIAMETER BORING(a) (feet bls)	8-5/8-INCH OD STEEL CONDUCTOR CEMENTED CASING(a) (feet bls)	12-INCH DIAMETER BORING(a) (feet bls)	4-1/2-INCH DIAMETER PVC BLANK CASING INTERVAL(a) (feet bls)	4-INCH DIAMETER 316L BLANK CASING INTERVAL(a) (feet bls)	4-INCH DIAMETER 316L WIRE WRAP SCREEN INTERVAL(a) (feet bls)	SCREEN SLOT SIZE (inches)	FILTER PACK INTERVAL (feet bls)	FILTER PACK SIZE(b)	GROUT FILTER PACK INTERVAL(a) (feet bls)	INTERCASING GROUT SEAL(a) (feet bls)
BF-10	12-01-89	131	0-110	1-109	110-131	1-110	110-120	120-130	0.045	113-130	MA	111-113	0-110
BF-11	12-06-89	124	0-102	1-102	102-124	1-94	94-104	104-124	0.020	102-124	2 X 12	99-102	0-99
BF-12	11-30-89	120	0-105	1-103	105-120	1-100	100-111	111-120	0.045	108-121	MA	105-108	0-105
BF-13	11-01-89	138	0-113	1-113	113-138	1-107	107-117	117-137	0.020	113-138	1C	110-113	0-110
BF-14	10-04-89	122	0-105	1-105	105-121	1-100	100-111	111-121	0.045	103-122	MA	101-103	0-101
BF-15	10-10-89	114	0-91	1-91	91-113	1-88	88-98	98-103 103-113	0.020 0.045	90-114	MA	85-90	1-85
BF-16	12-16-89	130	0-100	1-100	100-125 125-130(c)	1-92	92-103	103-124	0.045	102-126	MA	98-102	0-100
BF-17	12-18-89	124	0-97	1-97	97-120 120-124(c)	1-90	90-100	100-120	0.045	98-120	MA	95-98	0-95
G-8	12-13-89	181	0-136	1-136	136-181	1-130	130-140	140-180	0.020	129-181	1C	126-129	0-126
G-9	12-04-89	213	0-168	1-168	168-213	1-162	162-172	172-213	0.020	169-213	1C	165-169	0-165
G-11	11-04-89	218	0-174	1-174	174-218	1-166	166-177	177-217	0.020	175-218	1C	169-175	0-169
G-12	10-21-89	198	0-153	1-152	152-198	1-148	148-158	158-198	0.020	150-198	MA	148-150	0-148
G-13	10-07-89	197	0-152	1-152	152-197	1-147	147-157	157-198	0.020	121-197	1C	118-121	0-118
LW-1	08-24-89	250	0-225(d)	1-224(e)	225-251(f)	1-190	190-230	230-250	0.020	225-251	1C	204-225	0-204
LW-2	08-31-89	253	0-225(d)	1-223(e)	225-253(f)	1-192	192-232	232-252	0.020	230-253	1C	221-230	0-221
LW-3	11-18-89	261	0-225	1-225	225-261	1-198	198-238	238-258	0.020	236-259	1C	220-236	0-220

(a) Dimensions reported to the nearest foot.
(b) Filter pack consists of Monterey sand; filter pack sizes are Lone Star Lapis Lustre size designations.
(c) 5-1/4-inch diameter boring
(d) 16-inch diameter boring.
(e) 10-3/4-inch ID steel conductor cemented casing.
(f) 9-3/4-inch diameter boring.

bls = Below land surface
MA = Medium aquarium sand

TABLE C-3

WELL CONSTRUCTION DATA
UPPER BELLFLOWER AQUITARD TEST WELLS

WELL IDENTIFIER	DATE COMPLETED	TOTAL DEPTH DRILLED(a) (feet bls)	BLANK CASING INTERVAL (feet bls)	316L WIRE WRAP SCREEN INTERVAL (feet bls)	316L BLANK CASING INTERVAL (feet bls)	STAB-IN CEMENT SHOE INTERVAL (feet bls)	SCREEN SLOT SIZE (inches)	FILTER PACK INTERVAL (feet bls)	FILTER PACK SIZE(b)	FILTER PACK SEAL INTERVAL(a) (feet bls)	FINE SAND INTERVAL (feet bls)	INTERCASING GROUT SEAL(a) (feet bls)
UBT-1	09-22-89	99	1-60(c)	60-91(c)	91-96(c)	96-98	0.020	55-90	2 X 12	NA	NA	0-55
UBT-2	09-16-89	99	1-50(d)	50-91(d)	91-95(d)	95-97	0.020	45-91	2 X 12	40-45	38-40	0-38
UBT-3	09-12-89	99	0-60(d)	60-91(d)	91-96(d)	96-98	0.020	55-90	2 X 12	NA	53-55	0-53

(a)Dimensions reported to the nearest foot.
(b)Filter pack consists of Monterey sand; filter pack sizes are Lone Star Lapis Lustre size designations.
(c)6-inch diameter casing
(d)4-inch diameter casing

bls = Below land surface
NA = Not applicable

TABLE C-4

WELL DEVELOPMENT PUMPING SUMMARY

WELL IDENTIFIER	DEPTH TO STATIC WATER LEVEL (feet bls)	DURATION OF PUMPING (minutes)	AVERAGE DISCHARGE RATE (gpm)	ELECTRICAL CONDUCTIVITY (umhos/cm)	pH
MW-16	63.7	60	2.0	1,850	7.3
MW-17	69.7	60	12.6	1,900	6.8
MW-18	71.6	55	12.1	690	7.0
MW-19	67.6	60	12.5	1,130	7.2
MW-20	62.6	90	0.36	2,250	7.0
MW-21	58.9	65	5.0	2,500	6.3
MW-22	62.9	60	2.3	1,400	7.1
MW-23	60.4	---	B	---	---
MW-24	45.8	---	B	1,980	7.0
MW-25	56.0	76	6.5	1,750	6.5
MW-26	63.0	---	B	2,160	6.5
BF-10	54.3	65	7.2	810	8.1
BF-11	60.0	60	8.8	900	6.7
BF-12*	---	60	10	800	8.2
BF-13*	54.1	120	6.5	6,100	7.2
BF-14*	60.7	120	6.3	750	7.9
BF-15	47.2	73	8.6	1,825	7.4
BF-16	61.2	50	9.1	---	---
BF-17	49.5	50	9.1	---	---

*Well was predeveloped

bls = Below land surface
gpm = Gallons per minute
umhos/cm = Micromhos per centimeter
(---) = Data not available
B = Well was bailed extensively and not pumped; total volume bailed ranged from 73 to 82 gallons

TABLE C-4 (continued)
WELL DEVELOPMENT PUMPING SUMMARY
PAGE 2

WELL IDENTIFIER	DEPTH TO STATIC WATER LEVEL (feet bls)	DURATION OF PUMPING (minutes)	AVERAGE DISCHARGE RATE (gpm)	ELECTRICAL CONDUCTIVITY (umhos/cm)	pH
G-8	47.0	97	9.1	---	---
G-9	55.1	108	8.6	750	8.0
G-11	54.9	99	10	750	9.1
G-12*	51.1	120	6.1	810	8.1
G-13*	61.5	120	7.9	575	8.3
LW-1	80.0	105	52	490	7.0
LW-2	70.3	130	19	395	8.3
LW-3*	74.3	45	17	410	5.9

*Well was predeveloped

bls = Below land surface
gpm = Gallons per minute
umhos/cm = Micromhos per centimeter
(---) = Data not available
B = Well was bailed extensively and not pumped; total volume bailed ranged from 73 to 82 gallons

TABLE C-5

PUMP SETTING SUMMARY

WELL IDENTIFIER	DEPTH TO GAS DRIVE PURGE PUMP INTAKE (feet bls)	DEPTH TO ELECTRIC SUBMERSIBLE PURGE PUMP INTAKE (feet bls)	PURGE PUMP NOMINAL FLOW RATE (gpm)	DEPTH TO BLADDER PUMP INTAKE (feet bls)
MW-16	---	NA	NA	73.2
MW-17	---	NA	NA	74.0
MW-18	---	NA	NA	71.9
MW-19	---	NA	NA	73.3
MW-20	---	NA	NA	70.5
MW-21	---	NA	NA	64.5
MW-22	---	NA	NA	69.1
MW-23	73.3	NA	NA	67.8
MW-24	---	NA	NA	55.0
MW-25	---	NA	NA	68.3
MW-26	---	NA	NA	68.4
BF-10	---	86.3	7.0	111.8
BF-11	---	86.1	7.0	96.9
BF-12	---	86.1	7.0	103.0
BF-13	---	95.8	7.0	111.1
BF-14	---	86.0	7.0	107.3
BF-15	---	86.1	7.0	92.4
BF-16	---	85.9	7.0	96.9
BF-17	---	86.1	7.0	95.1
G-8	---	107.1	7.0	134.1
G-9	---	149.1	7.0	163.9
G-11	---	148.9	10.0	174.2
G-12	---	128.0	7.0	153.3
G-13	---	128.0	7.0	152.3
LW-1	---	170.4	16.0	195.9
LW-2	---	169.7	16.0	195.0
LW-3	---	191.5	16.0	201.7

bls = Below land surface
gpm = Gallons per minute
NA = Not applicable
(---) = Pump not installed

TABLE C-6

SURVEY DATA

WELL IDENTIFIER	REFERENCE POINT ELEVATION (feet)	TOP OF VAULT ELEVATION (feet)	DATE SURVEYED
MW-23	36.35	37.08	11-02-89
MW-24	22.40	23.04	11-02-89
MW-25	31.98	32.32	11-02-89
MW-26	39.17	39.92	11-02-89
BF-10	28.67	29.85	12-29-89
BF-11	33.66	34.59	12-29-89
BF-12	22.20	23.37	12-29-89
BF-13	29.52	30.32	11-06-89
BF-14	36.30	37.22	11-02-89
BF-15	22.82	23.88	11-02-89
BF-16	35.31	36.05	12-29-89
BF-17	22.67	23.62	12-29-89
G-8	22.52	23.48	12-29-89
G-9	28.48	29.58	12-29-89
G-11	29.48	30.34	11-06-89
G-12	25.85	26.86	11-06-89
G-13	36.09	37.10	11-02-89
LW-1	45.02	45.44	11-02-89
LW-2	42.07	42.79	11-02-89
LW-3	40.33	41.44	12-29-89
MW-16	41.31	42.01	04-23-90
MW-17	48.18	49.15	04-23-90
MW-18	50.29	51.33	04-20-90
MW-19	46.55	47.34	04-20-90
MW-20	43.04	41.70*	04-23-90
MW-21	36.49	37.43	04-23-90
MW-22	41.85	41.12	04-23-90

*Top of curb near well